DESIGNING DIVERSITY: INCREASING FUNCTIONALITY THROUGH FLEXIBILITY IN SINGLE FAMILY NEIGHBORHOODS

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DESIGNING DIVERSITY: INCREASING FUNCTIONALITY THROUGH FLEXIBILITY IN SINGLE FAMILY NEIGHBORHOODS

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SUMMARY

American cities have only recently 'come of age' in the global sense. Therefore, most of our land use regulations have emphasized greenfield development issues over those of a mature city. However, the next wave of city building could involve redensification. This thesis argues that modern day zoning needs to be more flexible in order to make possible the case for a sustainable mix of residential diversity, density, and affordability.

Conventional zoning relies on simplistic measures to regulate density and shape the form of neighborhoods. Initially used primarily as a way to make the field of planning appear scientific and rational, these measures do not create functionally flexible neighborhoods for the changing needs of the twenty first century. Urban spaces should be thought of as a language, composed of pieces that evolve with cultural norms. Zoning must evolve to reflect current societal values, with an emphasis on environmental issues, while meeting the needs of changing market structures if cities are ever to sustainably house their populous. Zoning's inflexibility towards cultural shifts uses antiquated assumptions to force contemporary city design into a regulatory straight jacket.

Using case studies within the city of Los Angeles because of its history in side-by-side integration of single family homes with a range of residential densities and supportive commercial uses, the thesis investigates four primary questions. First, under what zoning ordinances did the Los Angeles neighborhoods evolve and what lessons in functionality can be taken from their design? Second, looking at both conventional zoning and newer, form-based regulatory techniques, how does zoning affect the variety of housing types available?

Third, if an area desires increased density, what are the best ways to 'fit' multi-family next to single family? And fourth, what would a flexible zoning framework, created to support the future development of an evolving regional urbanization process and a changing social demographic, look like?

CHAPTER 1: INTRODUCTION

Isolated and protected, like the grounds of some medieval castle, single family neighborhoods are ensconced by planning policies that draw a moat around them, buffering them from essentially complementary uses. Pictured as a static entity that does not change over time, and sold by real estate boosters to a complacent public as such, they are the beneficiaries of a complex legal framework that acts to prevent a natural growth process from occurring. However, some of the areas best loved by this same public are picturesque, urban core neighborhoods that have grown and evolved over time. A mixture of housing options increases a neighborhoods density, diversity and affordability. Therefore, building multifamily housing side-by-side single family housing contributes to neighborhood richness by promoting a more sustainable urbanism.

Zoning has had to adjust many times to keep up with changing market forces and increasing public demands for control over land. The idea of dividing cities into fixed, singularly zoned districts to separate potentially conflicting uses has created a system of ever expanding minutia. It is a mistake to think of zoning as a fixed model. The idea is not to construct a discernable 'vision' for the placation of immediate community wants, but to establish a variable framework within which principles evolve over time to drape their eventual and unforeseen needs. The way to do this is to increase a neighborhood's functionality through a flexible zoning code that will evolve as its district does.

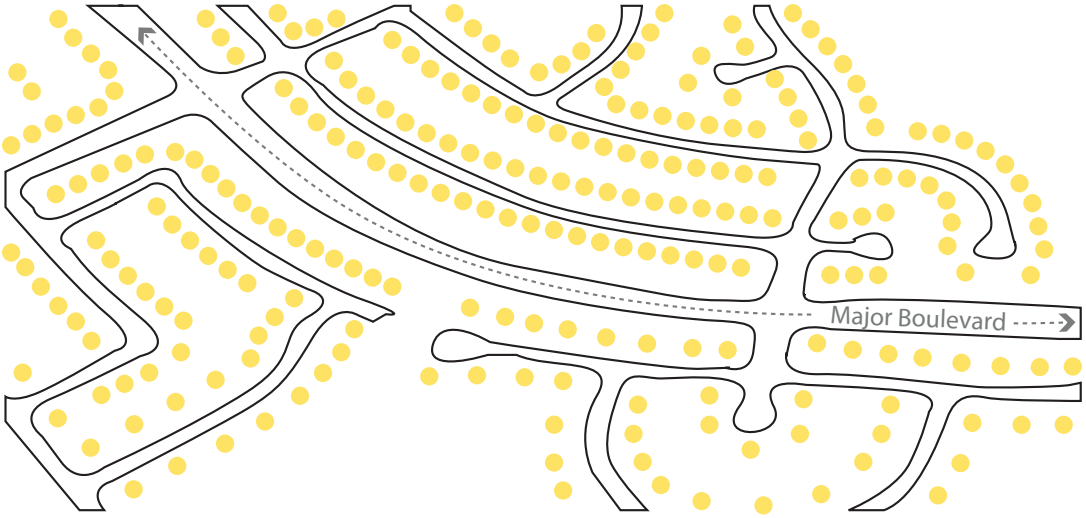
Development Timeline
Neighborhood Diversity

Lincoln, CA: Built over 5 years

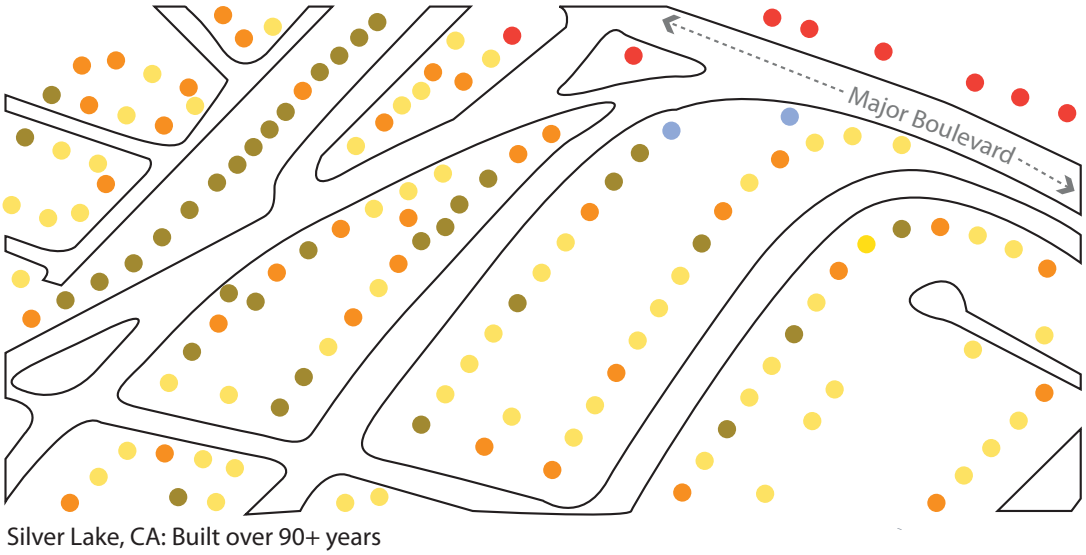
Silver Lake, CA: Built over 90+ years

Figure 1-1. Aerial comparison

Development Timeline
Neighborhood Diversity



Lincoln, CA: Built over 5 years



Silver Lake, CA: Built over 90+ years

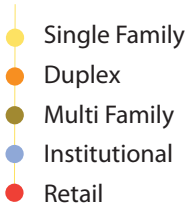


Figure 1-2. Functional diversity

Architects and Urban Designers are specially trained in this type of creative thinking for complex problems. Other typical players in the realm of urbanism; including real estate, construction, architecture, city design, and marketing, aren't necessarily so. Lawyer's tend to think linearly, developers must be concerned with profitability, planners often don't have the graphic representation skills, and public officials must first answer to their constituency. But despite their specialized skill set, architects and urban designers with an architect's training, are notorious for their negative thinking towards zoning policy. Viewing anything that might limit their creativity as a obstruction, they ignore dealing with the code until the last minute. Yet designers have toyed aesthetically with city design for hundreds of years. Any real change in the way we build cities however will require a significant shift in the legal, land use framework.

A primary question asked by this thesis is how to put a variety of housing types into a neighborhood to allow for its social and economic sustainability without sacrificing its traditional, low density and intimate character. Sustainability is defined in this thesis as, "the characteristics and ability of a neighborhood to be capable of providing physically adaptable and functionally flexible spaces for various people's activities while maintaining the richness of socio-cultural contexts."

Throughout the research, several ideas were continually mentioned to support the suggestion that zoning is ready to be adapted once again. Our legal coding needs to change in three very tangible ways to support the goals for the future of our cities: social equality, walkable neighborhoods, housing availability, and affordability.

1. SUSTAINABILITY. The biggest problem facing urban life today is the deepening problems of social polarization and inequality. Existing research

shows an inverse relationship between urban destiny and the degree of income inequality within metropolitan areas[1]. The emerging mega-regions need to balance social with economic and environmental cohesion. Urban designers can strategically take advantage of new opportunities to promote more democratic, multicultural, and socially and spatially just city-building processes.

2. MIXED DENSITIES. Historic Los Angeles neighborhoods are a great case study for the future development of the American city. Over time, they have undergone various transformations to accommodate changing economic needs, societal values, and infrastructural conditions. Zones don't need to be separated. Instead, the most important factor in neighborhood design is parcel subdivision and street hierarchy. Supplementing these initial framework layer, is the quality of building design, the relationships between buildings, the amount of programmable open space, and the availability of small-scale commercial functions to serve a community's basic needs.

Thus the present physical forms and functional patterns of the neighborhood are considered the consequence of evolutionary processes where individual neighborhood components changed over time in the way they relate to each other as a whole.

3. PREDICTABLE FLEXIBILITY. As laid out in Chapter 3, older zoning codes were enacted for and buy local real estate boosters, who were not intent on the greater public good. Wanting to 'freeze frame' their inventory into a particular aesthetic and 'exclusive' use to boost sales, they were crucial in developing a static zoning code neglects to take into account changing values over time. Therefore, as it exists, zoning does not address the market based or socio-economic forces currently driving the development of American cities.

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1 Wheeler, Christopher. Urban Decentralization and Income Inequality: Is Sprawl Associated with Rising Income Segregation Across Neighborhoods? Federal Reserve Bank of St. Louis. Working Papers, 2006-037.

Particularly in Los Angeles, where zoning was developed as an intermediary between vast speculation and early land availability. Although the city's diverse development patterns have by no means been caused by zoning alone, as a tool, zoning has contributed to the social and economic stratification of its neighborhoods.

The primary case study of this research - Silver Lake, Los Angeles - uncovers that prior to zoning regulations, neighborhoods were evolving with a sustainable mix of single family, multi family, and owner and renter opportunities of varying densities. Inhabited by a wide variety of ethnicities and socio economic groups, the simultaneous build up of a mix of housing situations led to a unique pattern of neighborhood evolution. Paired with its proximity to downtown and other employment centers, it has always been a desirable place to live and work and continues to be so. These conditions make the area ripe for infill redevelopment and reuse.

Today, this mixed use neighborhood provides a spatial and functional base for a sustainable live-work community to grow. The purpose of this research is to examine the roles and processes of mixed functionality neighborhoods in providing a sustainable, adaptable physical setting. Then, to be able to translate this into a legal language / framework that will allow this diversity creating process to happen elsewhere. Terming this language 'evolutionary zoning', the goal is a zoning code that adjusts well to changing circumstances, time and values. The intrinsic flexibility of our older, mixed use neighborhoods was a good thing.

The research is laid out as follows. Chapter 2 discusses changes in planning theory throughout the 20th century coupled with disadvantages to modern day zoning including economic and cultural stratification and lack of desired density. Chapter 3 moves through the beginnings of the American ideas of

private property ownership and how cities in Southern California took it to the extreme in their marketing campaigns leading to a very specific policy of land development that is unique to that region. Chapter 4 works further into the history of neighborhood evolution in Los Angeles, using three case studies to explain the location and placement of multi family housing in single family neighborhoods. Chapter 5 builds on this research by outlining the methods used to accumulate data and the results from the Silver Lake study. Here, potential lessons in for current decision makers are substantial, as housing shortages continue to vex cities struggling to preserve environmental quality. A primary goal of this research is to provide designers with their predecessor's accumulated knowledge about the consequences of street front relationships and side transitions when accommodating multi and single family housing on the same block.

After this, Chapter 6 begins the analysis, with a few words on what neighborhoods should be and why they're not. Chapter 7 critiques the standard state zoning enabling act, form based codes, and conventional zoning practices. And finally, Chapter 8 introduces the recommendations culled from this research on the integral components of an 'evolutionary zoning' framework.

CHAPTER 2: MAKING THE CASE FOR CHANGING OUR ZONING POLICIES

2.1 EVOLUTION OF PLANNING THEORY / UNDERSTANDING MOTIVES

Planning theory has long tried to order the development of cities. Over the past century, three theories stand out in the evolution of planning thought. First was the picturesque, made popular through Olmstead's sinuous, romantic landscapes. These early efforts promised a pastoral setting for the residences of the emerging middle class away from the assummed evils of the industrial city. Next was the formal, most easily recognized in the City Beautiful movement. This theory's purpose was to provide a visual representation of the inherent power structure of the time. Monumental structures and ceremonial open spaces take precedence over the day to day uses of the city. And the most recent 'umbrella' to develop has been the modern one. Stretched to its full capacity by CIAM, the approach meant to rely on technology to meet the needs of twentieth-century urban society.[1]

In each of these scenarios, the pieces that compose the city were made to be easily distinguishable. Then, they were classified, analyzed, and put back together in a more 'orderly' fashion. Early planning theoreticians advocated that if the pieces were arranged just so, then social, economic, and environmental harmony would surely follow. Fortunately, we have learned from our initial efforts and realize that a city is not a simple thing to organize. Order has never been what the pre-industrial, industrial, modern, or post-modern city was made of. Order, rather, is entirely man's effort to control the complexities around him. Not

1 Dobbins, Michael. Urban Design and People. Wiley. April 2009.

a bad goal, but it often leads to oversimplified results. If cities have never been about orderly pieces, the fact is even truer today.

The affects of globalization on urban places are growing concurrently with a rise in neighborhood activism in planning. Cities are strengthening inter-urban connections and learning from their inter-urban mistakes and opportunities. In order to respond in a meaningful way to the urban problems of our time, it is necessary to have studied both the globalizing systems that are manipulating this emergence and engage in local, traditional community building exercises.

Planning theory is shifting away from the type of comprehensive master planning documents that produced the utopian dreams of the past towards strategic, intervention based, place-focused frameworks. Master planning, as the favored method of community development strategy, favors a finished, polished and legally binding document – the comprehensive plan. The name is a misnomer however, as comprehensiveness is limited by study length in terms of time to gather data and study time in terms of prevailing planning theories. Comprehensiveness is also limited by the diverging number of public and private interests that are engaged in the process enough to contribute their positions. This adds to the planner's job description: finding the appropriate constituents. Typically, this results in the 'finding' of individuals whose jobs also require them to spend time in the discussion of civic affairs.[2]

The result of this haphazard, time-pressed process is an often shallow document that is then viewed by the community, the city, and potential developers as a "solution" to problems of the city. It's "a solution" to a problem that was never properly defined.[3] Another issue is the extensive amount of time that the plan is supposed to guide. The comprehensive plan sells itself as a long

2 Altshuler, Alan. The Goals of Comprehensive Planning. *Journal of the American Institute of Planners.* August, pp. 186-95.

3 Dobbins, Michael. Lecture. Urban Design: Policy and Implementation. Georgia Institute of Technology. Feb 24, 2008.

range framework for realizing community goals. When, in actuality, the amount of political, social, and economic change that occurs over a twenty year period is likely to render the plan void. Rather, a plan should consist of a series of specific steps to affect an existing population in a shorter timeframe.[4]

The role this type of strategic, intervention based frameworks are to expand the conversation between constituents, gain a global view, and engage a broader public in the fostering of neighborhood identity. This idea of time-based evolution is the single most important aspect missing from the master plan document. These three factors are intertwined with the neighborhood's inherent variability over time[5].

Planning for city growth, economic development, and cultural evolution is entirely dependent on the passage of time. The benefits of having a flexible framework rather than a static document are many and include a more engaging process with expanded, mutually beneficial partnerships between public and private entities, developer and neighborhood, people and their representation. This turns into a greater understanding of the complexity of choices and the expansion of opportunity. In this dynamic, continuous process, answers come from matching global expertise with local knowledge through an ongoing and linked series of projects. Zoning has the potential to be the underlying legal property development framework which allows a process like this to work with a mix of predictability and flexibility.

2.2 ZONING LEADS TO SOCIAL STRATIFICATION

Most of the people living in early American cities were associated in some respect to the manufacture, marketing, and distribution of goods. Urbanization

4 Perin, Constance. The Noiseless Secession from the Comprehensive Plan. Journal of the American Institute of Planners. 1967.

5 Thurlow Small Architecture with Muchi East. Plan-less-ness: The Bay City Project. Praxis. Issue 10. October 2008.

was structured around the accumulation of individual wealth[6]. There were no fixed, clearly articulated standards of development but rather ad hoc solutions achieved via private arrangements among land owners. This led to a scanty public realm, that often went without such commonplace improvements as sidewalks and sewers.

However, prior to the well documented Supreme Court decision of Euclid vs. Ambler Realty in the 1926, residential neighborhoods near downtown environments supported a variety of densities and housing types. This created a highly interactive environment for various classes of individuals in all stages of life. Of course, some functions were in very real conflict with others, but in the process of regulating this complexity, Justice Sutherland's heavily biased opinion ruled against the desirable situations that existed before. His argument against the 'parasitic nuisances' of apartment buildings near detached single family neighborhoods helped to transform the American City, where single use trumped diversity.

This strong language against denser dwellings led some cities to use the legal wording of zoning ordinances for purposes other than mere land use control. Even today, many modern communities continue to define themselves by exclusion of others and ultimately serve as a barrier to rather than a resource for the middle class.[7] More expensive districts are zoned for *protection* against invading uses, middle income districts are zoned for the promotion of higher density and thereby higher value apartment buildings, and finally, low income districts are zoned with the *promotion* of industrial uses with absolutely no protection in terms of the working class population.[8]

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6 Timothy J. Gilfoyle, Urbanization, in A Companion to 19th-Century America. 152, William L. Barney ed, 2001.

7 David Harvey, The Spaces of Utopia, in Between law and Culture: Relocating Legal Studies. 105. David Theo Goldberg, 2001.

8 Weiss, Marc, op. cit. note 8,

Zoning allowed the dictation of social organization through exclusion of higher densities and therefore, lower priced homes. The results of these actions contributed to distorted real estate markets, income segregation, reduced opportunities for class interaction and increased sprawl.[9] Areas of Los Angeles with large minimum lot sizes increase costs and prohibit those at lower income levels (young people, single parents, elderly couples, immigrants) from buying into a community. These untraditional family groupings are now the majority of urban dwellers and have never had the same space requirements that a traditional family of four might. This is especially damaging at a time when renewed interest in city living is raising land values.

The stratification of socio-economic classes is highly correlated with urban densities.[10] As decentralization increases, high income households grow increasingly separated from low income households. Neighborhoods with housing stock on similar lot size, year of initial construction, number of units, and quality will be similar in price. This homogeneous mixture of dwelling units will attract a similarly homogeneous group of buyers, likely in the same income category. This is important to the evolution of cities and their effect on their inhabitants because wealthier neighborhoods pay higher property taxes that disproportionately improve their public services, schools, parks and roads, over that of poorer neighborhoods.

Socially, it has been determined that a person's peer group heavily influences their satisfaction with and integration into their jobs or schooling.

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9 Fiscelli, Chris. Zoning Needs an Overhaul. Planetzen.com, September, 2003.

10 Wheeler, Christopher. Urban decentralization and income inequality: Is sprawl associated with rising income segregation across neighborhoods? Federal Reserve Bank of St. Louis. Working Papers, 2006-037.

[11] [12] [13] Residential segregation via income reduces the opportunities that various societal groups have to socialize and form bonds in their schools and neighborhoods. Sociologists such as William Julius Wilson suggest that this lack of neighborhood exposure to a mediating, middle class role model is a major contributor to urban joblessness, social problems, and upper class apathy[14]. In this way, the income sorting that results from dubious zoning practices may have consequences that reach beyond the current generation.

2.3 ZONING LEADS TO LACK OF DESIRED DENSITY

Zoning frequently impedes trends in the free market by restricting densities of projects that may have a market for a greater density. With traditional land use regulation, it should not be surprising that much of modern development looks as it does.[15] According to a Myers and Gearin's study on current preferences and future demand for denser residential environments, older households in particular will greatly prefer denser housing choices in the coming years.[16] This study was designed to take into account the current downturn in the economy. Despite the slowdown, as positive examples of density designed for the middle class continue to emerge, demand for compact housing grows. Lack of zoning language allowing related to this alternative has led to a supply shortage in this niche.

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11 Case, A. and L. Katz, 1991. "The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youths," NBER Working Paper 3705.

12 Hoxby, C., 2000. "Peer Effects in the Classroom: Learning From Gender and Race Variation," National Bureau of Economic Research Working Paper 7867.

13 Katz, L., J. Kling, and J. Liebman, 2001. "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment," Quarterly Journal of Economics, 116(2), 607-54.

14 Wilson, Julius William., 1987. The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy, University of Chicago Press, Chicago.

15 Fiscelli, Chris. Zoning needs an overhaul. Planetzen.com, September, 2003.

16 Myers, Dowell and Elizabeth Gearin. 2001. Current Preferences and Future Demand for Denser

Residential Environments. *Housing Policy Debate*. Volume 12, Issue 4. Washington DC: Fannie Mae Foundation.

Traditional zoning also prevents mixed land uses even though that may be the preferred arrangement. Mixing land uses contributes to lessening traffic congestion in daily commutes, increasing the public perception of safety through increased interaction and supervision among users, and growth of sidewalk culture. In addition to these design factors, changing demographics also contribute toward the growing nationwide tendencies for increased density, including an increase in immigration from cultures that contribute to urban vitality through their traditional lifestyle. Changing zoning to reflect these trends should increase quality of life for all residents, accommodate population growth, reduce environmental impact and offer developers a viable model to profit from.

2.4 NEW DEMOGRAPHIC TRENDS

One of the most pressing trends in the Southern Californian region points to increasing multi-culturalism. The California Department of Finance projects that by 2042, Los Angeles will have a majority population of Latinos[17]. For example, a heavy influx of Hispanic immigrants to an area fundamentally changes the way a city operates. With characteristics differing from the majority of households, Latino's cultural inclination to a lifestyle supportive of compact cities provides policy makers with a substantial alternative that possessed a built-in customer base.[18] In particular, Hispanics are more connected to multiple generations of family members and use public, urban spaces to meet their neighbors.

This is even reflected in the layout of a traditional Hispanic home plan verse an American plan. Hispanic homes use their layout to create a buffer around a common open space, for socializing. While as the further you recede into a

17 California Department of Finance. (2007) Press Release. http://www.dof.ca.gov

18 Mendez, Michael. 2005. Latino New Urbanism: Building on Cultural Preferences. *Opolis*. Vol 1, No 1: Winter 2005, pp 33-48.

traditional American home, the more private it becomes. Ideally, Latinos and non-Latino's alike who favor compact, urban lifestyles should be able to choose amongst a variety of housing development styles. This aspect of multiculturalism should encourage planners to develop policies that are representative of the preferences and needs of current and future population groups.

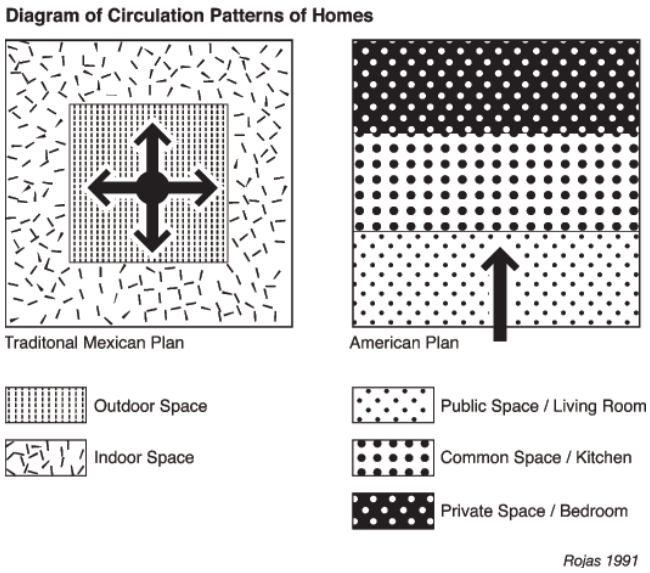

Figure 2-1. Public / private transition diagrams of Latino housing typology.

Other nationwide trends that the LA area exemplifies are young professionals waiting longer to start families, empty nesters moving back into cities, and a smaller percentage of families in the overall demographic makeup. These changes are all related to one specific problem, that the City of Los Angeles has struggled with, publically, for decades; housing. Lifecycle housing, housing affordability, and housing choice are all issues that need to be addressed because of changing demographics and rampant growth. The single family home no longer meets all of the housing needs of those living in and moving to urban areas, yet zoning has frozen much of the city to be only that.

Multi family homes continue to play an important role in the development

and growth of the city. A Myers and Gearin study from 2001[19] notes that people over the age of 45 make up only 16 percent of urban environments in the 2000 census, while people ages 25 – 44 make up just over twice that, at 34 percent. This is the same age demographic that is most likely to rent, and live in multi family housing. These numbers are estimated to stay fairly constant for at least another generation, as the under 19 cohort currently resides at 37 percent of the population total.

With traditional land use regulation, it should not be surprising that much of our urban landscape reflects the demographics of the 50's and 60's[20]. Changing zoning to reflect these new trends should increase qualtiy of life for all residents, accommodate population growth, reduce environmental impact, and offer developers a viable profit model.

2.5 WHY FLEXIBLE ZONING

Without the choice to strategically allow neighborhoods to evolve into higher densities through carefully written zoning policies; in-town housing availability, consumer housing choice and affordability will continue to be limited. Those in positions to regulate city policy need to take action to encourage zoning policies that reflect contemporary and historical urban complexity. Zoning has a significant impact on urban development and the design of which framework should reflect the public's best interest, which includes neighborhoods diverse enough to support individuals in all stages of their life cycle. Individual neighborhood organizations are often too involved in their immediate interests to understand the greater needs of the collective metropolis.

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19 Myers, Dowell and Gearin, Elizabeth. (2001) Current Preferences and Future Demand for Denser Residential Environments. Housing Policy Debate. Fannie Mae Foundation, Volume 12, Issue 4.

20 Fiscelli, Chris. Zoning Needs an Overhaul. Planetzien.com, September, 2003.

Segregation via income may be alleviated by allowing multiple combinations of housing types in a neighborhood, mixing densities, alleviating stringent on-site parking regulations and allowing market based densities. In this paper, historical analysis will uncover that prior to Justice Sutherland's opinion, many neighborhoods were evolving with a sustainable mix of owner and renter properties of varying densities that supported city sustainability by growing along main transit corridors.

This thesis recommends incremental changes to zoning codes to allow for innovation. The eventual proposals in Chapters 6, 7, and 8 take physical design characteristics and building adjacencies into consideration rather than simplistic calculations of dwelling units per acre.

CHAPTER 3: HISTORY OF LOS ANGELES RESIDENTIAL ZONING POLICY

3.1 HISTORY OF PRIVATE PROPERTY IN THE UNITED STATES

The ability to own of property is fundamental to a free market society. Its superiority over collective ownership in generating incentives to secure scarce resources efficiently has been recognized.[1] This section explains one of the ideals of the founders of the United States, that of a constituted democracy with private property, in order to understand our current legal codes and development practices.

During America's colonial years, most of the western European countries the colonists had come from were still controlled under the remnants of feudalism. A lord owned the land and the peasants worked it. Ownership of property by anyone other than the most elite rarely existed. This model was something the colonists were trying to get away from. They were rewarded by the availability of a large, free-for-the-taking landmass stretched out in front of them.

The initial system of land grant distribution stemmed from use. If an individual would work the land, in active agricultural or forest management tasks, it was theirs for the taking. The existence of so much land converged nicely with the colonist's new political theories of the period. Thomas Jefferson carried the torch of private property rights during the American Revolution:

> "The true foundation of republican government is the equal right of every citizen in his person and property and in their management." --Thomas Jefferson, 1816.

In his eyes, a freely constituted government existed primarily for the protection of this liberty to own and use land.[2]

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1 Boettke, Peter. The Role of Private Property in a Free Society. Virginia Viewpoint. April 2005.

2 Burns, Carol and Kahn, Andrea. Site Matters. Routledge, 2005. p. 21.

To be American was to own and control private property. For (white, male) immigrants, maintaining ownership of land and using it as capital was the way to make a future for themselves. Influential farmer / politicians argued that it was as much for the right to own and control land as anything else that the new political experiment, American Democracy, was coming into being. James Madison declared, "government is instituted no less for the protection of property than of the persons of individuals". Adams noted that "property must be secured or liberty cannot exist."

Therefore, democracy required liberty and vice versa, and both in turn included ownership and control of property. However, Jefferson was worried about political corruption through vote buying. The only class of individuals that would have the spare change to influence voting were the mostly urban dwelling merchant class. Therfore, Jefferson granted the yeoman farmer (a small, family farmer who would have owned and controlled his own land) control of the foundation of the foundling American democracy. By being an land owner, the farmer was in a position of economic independence and therefore would not allow his vote to be tainted by political bribes. This placed him over the urban wage earner in terms of morality, who might be tempted through his employer. Thus it was the rural land owner, and not the urban wage earner, who was in the best position to make political judgments that reflected the greater public good.[3]

Jefferson's ideas reigned supreme during colonial America, but as cities densified and people moved closer to their neighbors, the desire for control over others individual property rights emerged. This was key to the early 20th century zoning codes. The next few pages attempt to understand the conditions under which zoning codes were enacted and to whom their benefit was aimed.

3 Burns, Carol and Kahn, Andrea. Site Matters. Routledge, 2005. p. 26.

Clearly, private property rights are a prerequisite to economic prosperity and social harmony. However, the entities we have created to protect these rights grow increasingly murky under layers and layers of regulation.[4]

3.2 TAKING UP THE TASK: INTRODUCTION TO SOUTHERN CALIFORNIA

Southern California has displayed much of the national leadership in the realm of zoning codes since the early 1900s. Before then, land was regulated via 'deed restrictions' at the point of sale. By going beyond this individual-to-individual transfer of rights and restrictions and creating a new local governing body to regulate the activities allowed on a particular parcel of land, Southern California started in motion a new type of city building exercise. The resulting low scale spread of population is something so different from traditional notions of urbanism that it offers a variety of lessons in embracing the diversty[5].

As home to the nation's first large scale zoning regulations, Southern Californian innovated largely as a way to accommodate unprecedented numbers of tourists attracted by the area's natural beauty. This striking change from the denser, industrial east coast cities was so unique that real estate developers were stumbling over themselves to protect it.

Like in many other parts of the country, restrictive covenants were initially incorporated into land deeds as a way to control land use and ensure low scale development. Most frequently, this was used to create residential neighborhoods with restrictions such as detached single family dwellings, minimum construction costs, racial and religious exclusion, setback requirements, and other features.[6] The National Association of Real Estate Brokers had strong

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4 Boettke, Peter. The Role of Private Property in a Free Society. Virginia Viewpoint. April 2005.

5 Soja, Edward. Designing the Post Metropolis. Harvard Design Review. Number 25. Fall 2006 / Winter 2007.

6 Weiss, Marc. The Rise of the Community Builders: The American Real Estate Industry and Urland Land Planning. (New York: Columbia University Press, 1987).

involvement in and were early advocates of these deeds and later for the concept of zoning.

However, regulation among the real estate industry was sporadic at best, especially since early city directors lacked the authority to coordinate the various entrepreneurs in setting the rules. A typical unrestricted city block might still hold any combination of single family residences, boarding houses, apartment buildings, shops, offices and factories[7].

3.3 EARLY HISTORY OF LOS ANGELES RESIDENTIAL ZONING EXPERIMENTS: DRIVEN BY REAL ESTATE

> "In their commitment to the idea that different uses were inherently incompatible, planners ignored the more profound problem of how they were related to one another."[8]

By 1920, the City of Los Angeles stepped in to solve this issue by establishing the Los Angeles City Planning Commission. By then, nearly the entire city was divided into either residential or industrial districts by restrictive covenants embedded into land deeds. The "blanket nature of the law over such a vast territory meant that the City Council was constantly creating 'exceptions' for a whole variety of land uses that could not be kept too far away from the residential portions of the city."[9] The continued instances of increasing levels of exceptions to the rule were due to expiring sets of deed restrictions and rapid industrial development. Therefore, newly established Commission set it upon themselves as their "first duty" to "protect the homes of the city".[10]

Commissioners advocated for the novel concept of isolating single family

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86.

7 Mansel Blackford. The Lost Dream: Businessmen and City Planning on the Pacific Coast, 1890 – 1920. Columbus, Ohio State University Press, 1993. Chapter 3.

8 Fogelson, Robert, The Fragmented Metropolis: Los Angeles, 1850 - 1930. University of California Press, Berkeley,1967, Reprinted 1993. 257.

9 Weiss, Marc, op. cit. note 5,

10 LACPC, Meeting minutes, August 27, 1925.

housing from other uses. The image of a single family house sitting in a lush garden was, even by this early date, archetypal for Southern California and the 'pride and joy' of local real estate boosters.[11] This idea took immediate strong hold. Planners paid little attention to the warnings by the city attorney about the dangers of legal trailblazing.[12] They were enthused to act boldly, and placed the detached house in its own elite category. This was "nothing short of epochal" according to the planning director.[13]

> "None of the cities then zoned had provided for a strictly single family residential zone, but the preponderance of single dwellings in Los Angeles made it imperative to provide them with protection."[14]

National legal precedents had not yet been set. The city attorney was entirely justified in his worries of pushing the limits of municipal authority in segregating land uses. Going even further against the advice was one commissioner who argued heavily for an additional zone made up of small, multi family dwellings – the already popular double bungalows and flats.[15]. This would make for three total categories. The rest of the commission feared that further and further subdivision of the categories would weaken the overall document and the argument for legal prudence held sway. The simpler, dual regulatory system was adopted by the end of 1920. Little did they know, planners would continue to break down the categories into increasingly specific instances and the issue of housing diversity would emerge as land use regulations evolved.

Eventually, Los Angeles ended up setting the precedent on the classic pyramidal zoning scheme where the land use designation at the top is the most

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11 Gish, Todd. Building Los Angeles: Urban Housing in the Suburban Metropolis, 1900-1936. PhD Dissertation, University of Southern California, Los Angeles. August 2007.

12 Los Angeles City Planning Commission (LACPA) Zoning Committee meeting minutes, Spetember 24, 1920.

13 G. Gordon Whitmall, "The Significance of the Recent Supreme Court Zoning Ruling," Los Angeles Realtor. April 1925. 19.

14 LACPA, Annual report 1929.

15 LACPA meeting minutes, April 26, 1921.

pure, and each zone under that first one is allowed all the uses of those above it. The city's planners, more than lightly pressured by real estate boosters, developers and others who stood to profit from the protection and elevation of the single family home, placed individual houses at the apex of this ranking – almost invariably labeled as "A-1" or some other exalted designation – and classified apartments or commercial buildings with lower values.[16] However, the argument for the proper placement of apartment buildings in Los Angeles had just begun.

3.4 LEGAL ZONING PRECEDENT SET

The famous 1926 Supreme Court case of Euclid vs Ambler Realty finally gave the Commission the legal support it had been so concerned about. And in an opinion that would set the tone of future NIMBY-ism everywhere, Justice Sutherland's majority opinion in the case defended the property rights of single family homeowners against those living in multi-family arrangements, pointing out that "the development of detached house sections are greatly retarded by the coming of apartment houses" and noting that such inclusion has sometimes "resulted in destroying the entire section for private house purposes".[17]

Sutherland further described the apartment house as a 'parasite', constructed in order to take advantage of the open spaces and single family character of the neighborhood.

> "The coming of one apartment house is followed by others, interfering by their height and bulk with the free circulation of air and monopolizing the rays of the sun which otherwise would fall upon the smaller homes, and bringing, as their necessary accompaniments, the disturbing noises incident to increased traffic and business, and . . . moving automobiles, and larger . . . streets, thus detracting from their safety and depriving children of the privilege of quiet and open spaces for play."

16 Vale, Lawrence. From the Puritans to the Projects. Harvard University Press. 2000.

17 Sutherland, George. 1926. Village of Euclid, Ohio vs. Ambler Realty Co (No. 31). 272 US 365. 22 November.

In one declarative sentence, Justice Sutherland has used resident age as a justification for decreasing neighborhood diversity, affordability, and choice. Even in 1926, the idea that children should not live in apartment buildings should have been ludicrious. His opinion upheld the position that apartments ought properly to be regarded as a form of business, where owners and landlords conduct their market based transactions rather than where people actually lived their lives.[18]

Sutherland's strong language against the multi family dwelling led some neighborhoods to develop to be entirely segregated by density. Even worse, some cities began to use the legal wording of zoning ordinances for purposes other than mere land use categorization. With the precedent set, planners set in motion categorizing the entire city of Los Angeles into use zones. As one might imagine, this was a huge undertaking. An extensive survey was begun to determine under which land use the approximately 150,000 parcels of the city were to be put. During this process, the pattern of land use that Los Angeles had been following since the late 1800's was studied for the first time. a reporter for the LA Times seemed relieved to note that the city had followed a, "very logical process following very definite causes." [19] T

Surpisingly, or not, on this first foray into land use zoning, planners ran into many of the same usses that we have today. Primarily, the issue of pre-existing and non-conforming uses. Especially telling was that the majority of city blocks had evolved with a mix of functions. In these first zoning maps, planners had a choice. They could either rubber stamp the development that had occurred or zone for the eventual change of such growth patterns. The fundamental

18 Report on the Removal of the House of Industry. Annual Report of the Directors of the Houses of Industry and Reformation, Boston City Document No. 12. April 1, 1850.

19 G. Gordon Whitnall, "History of Zoning Told," Los Angeles Times, November 18, 1923, V5.

question became, which new designation should be given to older areas already built out to varying degrees in one or several land uses?[20]

3.5 EARLY CONTROVERSY

> "Where are the ideals of a comfortable home life when high land prices are forcing . . . . . buildings higher and closer together, doing away with open space . . . . and reducing all social standards and eliminating social ideals?"[21]

As today's planners have experience with, at the end of this in-depth process, there were still plenty fo issues when the the code was introduced to the public. Interesting for an area already beginning to be known for its love affair with the single family home, one of the biggest early controversies was over how little area was actually designated for detached houses verses multi-family. As of 1926, nearly sixty percent of urban Los Angeles was placed in Zone B allowing both multi and single family dwellings, while just under 10% was in Zone A – restricted to single family only. [22] These initial maps released a vision to the public that did not match the vision promoted by the marketing teams of the popular real estate developers of the time. It was a vision of a predominately apartment housed LA. The planning department had a public relations problem on their hands. Worry over this large scale application of what amounted to the "catch all" classification of Zone B, would drive the push for a revamped zoning ordinance almost immediately.[23]

One observer wrote "The idea that every lot in the extensive 'B' zone district of this city is potentially an apartment house site is a fallacy of ridiculous proportions."[24] So why did they zone for so much of it? Several rationalizations

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20 Gish, Todd. op. cit. note 10.
21 Siegfried Goetze "The Housing Situation in Los Angeles," National Municipal review 8/4. April 1924. 199.
22 LACPD, Annual report, 1927 – 1928, pg 6,7.
23 Gish, Todd. op. cit. note 21.
24 Eberle Economic Service, weekly Letter, December 24, 1928. pg 316.

could have been likely[25]:

1. A chance to allow greater choice of residential types in a market already chiefly characterized by small structures.

2. They did not think that the entirety of 'B' zoned property would be instantly and simultaneously developed to its fullest extent.

2. Pressure for up-zoning in a booming, pre-depression era speculative economy.

3. The cumulative nature of zoning categories, allowing for single family within multi family zones,

4. An already common typology of small, multiple dwellings, which were not allowed at all in the 'A' zone.

5. The newness of the field of planning, and the still vast opportunities offered by territorial expansion.

By designating so much land in a way that seemed flexible, planners probably believed they had reached a good compromise.

3.6 NEIGHBORHOOD EVOLUTION 'DISCOVERED'

One of the patterns of development that turned up during the early 1920s land use surveys which troubled local realtors was evidence of the transition of larger single family houses into multiple dwellings. Or, potentially more troubling, additional units being built onto already occupied single family lots. Local realtors were unerved by this. Rather than try to understand the increase in density as a 'logical process following definite causes', prominent local realtor Harry Culver believed that once this shift began, a death knell was to be sounded for the neighborhood.

> "That district is not yet able to absorb many apartment houses, and thus the home value is prematurely destroyed. . . Properly

25 Gish, Todd. op. cit. note 24.

> controlled, the single family residence district should last a longer time than it now lasts. Add a few years to the life of such a district and the transition from the single family to the apartment house district will be materially decreased." [26]

Culver essentially announced publically what likely many already thought privately, that the addition of any form of density would bring down property values. However, this quote reveals something other than the public announcement of the start of future NIMBY fanaticism. The realtor in question took for granted that older, single family neighborhoods tend to evolve over time. Of course, his quote is a very explicit attempt at stopping such gradual change in character, but its important to note that he didn't question the principle.

City wide, there was a similar push to reign in the perceived dominance of the multi-family housing. "Some correction must be had to the present zoning situation in Los Angeles . . . to preserve for persons who desire to live in single family residences or in duplexes or four family flats some degree of safety. The larger apartment house . . . erected adjacent to the limited multi-family dwelling shuts of flight and air."[27]

As part of the learning process associated with starting an entirely new legal framework for molding city growth, planners had not foreseen the community uproar associated with an undifferentiated zoning category that encompassed all multi-family structures. It took time for the idea of nuances to emerge. However, the 'damage' was done. Booms in tourism, population, and real estate speculation ratcheted up the demand for multi family housing just as vast areas of the city were zoned category 'B'. The convergence of these forces enabled large scale apartment development in places planers probably

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26 Harry Culver, "A Realtor's Viewpoint on Zoning, Present and Future". Annals of the American Academy of Political Science. 155. May 1931, 210.

27 "Urge Zoning Correction by Civic Groups Here" Los Angeles Times, January 13, 1929. E1.

expected to fill out with much smaller apartments.[28] Apartments accounted for a mere 8 percent of the building permits issued in the city in 1920. The proportion rose to 53 percent by 1928[29].

3.7 MULTI FAMILY, CREATION OF DIVERSITY IN CODING LANGUAGE

This lack of differentiation and control over multi family housing type, scale, density and character led city planners to their second major overhaul of residential zoning ordinances. By 1930, Los Angeles planners added amendments designed to control scale, the most egregious of an apartment building's potential violations, setting maximum building heights and lot coverage percentages for each land use category.[30] The new code allowed for four types of residential zones. R1 was created to supplement 'A' as single family homes, the new R2 permitted two to four unit structures up to two stories in height. R3 was designed to allowed medium sized apartments up to four stories and R4 was anything larger than that. Obviously learning from their early lessons, and with every intention of promoting smaller multi family structures over their larger relatives, the commission dove into language once reserved for the threatened single family house. In defining the separation of the 'B' zone into three categories the Commission declared, "the primary need was for . . . zones which would *protect* districts particularly suited for duplexes, four family flats, and small multiple dwellings from encroachment of large multiple-story apartment houses and hotels. [31]

28 Gish, Todd. op. cit. note 26.
29 Ford, Larry R. (1986) Multiunit Housing in the American City. Geographical Review, Vol. 76, No. 4, pp 390-407.
30 LACPD, Annual Report, 1929-1930, 63.
31 Ibid.

Figure 3-1. Sketches of Residential Zones
*note, these drawings seem almost to be an early example of form based codes

The objective of all this experimentation in land use regulation was reflected in the desire to create an orderly, urban landscape. Where should each component of the urban landscape be placed in relation to the others? Zoning ordinances provide the legal framework that defines the bounds of the city growth and evolution process. Now that residential zones were broken into four divisions, city planners had the tools to arrange components for further explorations into transitional zoning theory. Unsatisfied with their first two attempts, planners made efforts to find new regulating variables within the urban realm. What they found would shape urban theory for decades to come.

3.8 FURTHER EVOLUTION OF THE CODE: ADDING STREETS AND MIXED USES

The newly developed residential categories were restructured according to street width. Apartments were placed on major boulevards, duplexes and flats on secondary avenues and single family homes on tertiary streets.[32] "R1 should be separated from R3 by either R2 lots or an alley and R2 and R3 zones are also separated from commercial lots by alleys."[33] This was a shift from the pre-automobile view of the boulevard as an elegant linear parkway, heavily landscaped and lined with large single family homes. The idea was to create a

32 Weiss, Marc, op. cit. note 19. p. 101-105.
33 LACPC, Annual Report, 1931-1932. 12.

more carefully gradated shift in residential function and intensity. These methods were are also later employed by CIAM's urban-rural transect in the 1950s and remain prominent in current planning theory with New Urbanism's emphasis on a similar urban transect.

This new schema used multi family housing as a cushion between residential and commercial uses. This was likely influenced by Justice Sutherland's opinion of multi family housing a mere business transaction. Excited about their new theoy, a flurry of action was seen in parts of the city that had not yet been zoned. As a result of this new system of block development, maps for undeveloped Los Angeles became like Kodak Theatre on Oscar night, as red carpet was rolled out everywhere. Boulevards from downtown to the beach were striped with long, thick strands representing business and commercial zoning. This was primarily due to speculation, as there was heavy pressure from boulevard lot owners to be "awarded" with the higher lands values of commercial designation.[34] As one gleeful realtor wrote in a professional newsletter, "Which will be the lucky street?"[35]

34 Gish, Todd. op. cit. note 33

35 Ralph E. Ford. "Remarkable Development of One Outlying Business Street" Los Angeles Realtor 1/7. April 1922, pg23.

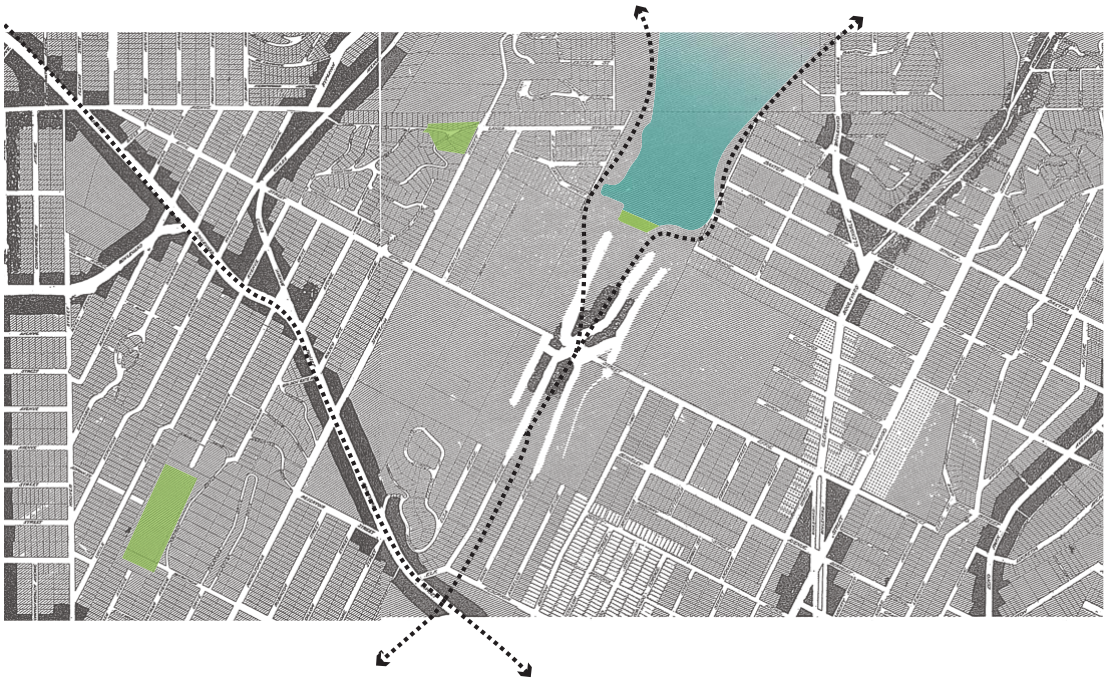

Figure 3-2. Portion of Los Angeles 1928 Zoning Map. Sunset Boulevard in Silver Lake.

3.9 TROUBLES WITH OVER ZONING COMMERCIAL PROPERTY

Zoning for so much commercial use in underdeveloped areas was clearly headed for trouble. The president of the Realty Board lamented both the aesthetics and economics of this condition, saying that "most of the so-called business frontage was born of the wedlock between ignorance and speculation, and the naked miles of vacant lots along our arteries of travel are mute testimony to an economic waste.[36] Designed as a quick fix to an increasingly ridiculed problem, planners developed their first attempt at mixing uses. Placing multi family housing between bookends of commercial zoning allowed a development model for 'tabla rasa' areas that included four corners of commercial, filled in with multi-family, all to buffer a block interior of single family.

36 George H. Coffin, "Zoned into Oblivion," City Planning 10 (October 1934), p. 189.

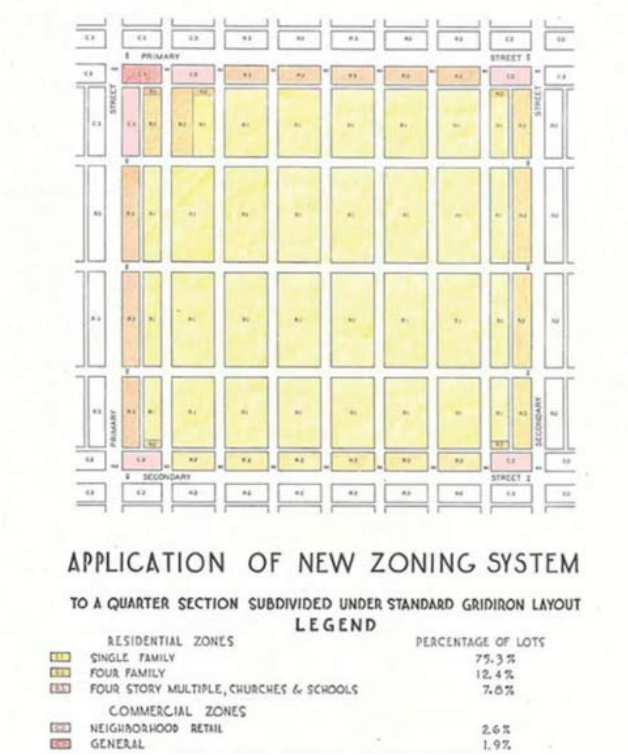

Figure 3-3. A 1932 land use template intended for quarter mile parcels.

Eventually, the complexity of this boulevard land use issue drove planners as far as sanctioning a new urban building typology that mixed residencal and commercial in the same structure. "The C1-Apartment House and Restricted Business" designation was introduced in the late 1920s by the Regional Planning Commission for any street with at least an 80' right of way.[37] By the time the city formally adopted this classification in 1934, they were still leading the country in innovation for methods of organizing residential density. Cognoscente of their leadership role, planners seemed to realize that there was no turning back, "Bungling at this stage can never be wholly repaired."[38]

3.10 POST ZONING DEVELOPMENT, WHAT HAS HAPPENED MORE RECENTLY?

37 LACRPC, "Guide to Los Angeles County Zoning Ordinance," (1929), 14.

38 Los Angeles Regional Planning Commission, "A Comprehensive Report of the Regional Plan of Highways: Section 4, Long Beach-Redondo Area. 1931.

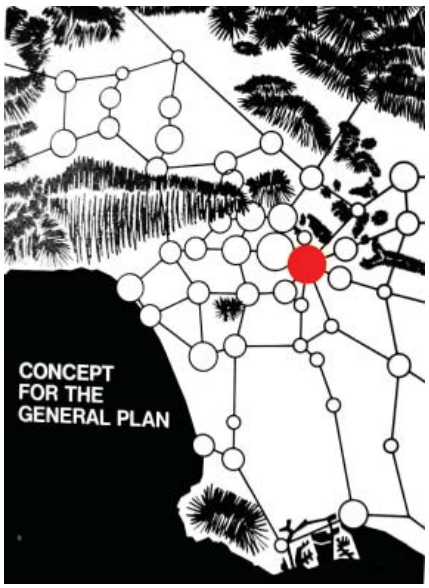

Figure 3-4. 1970s Centers Concept Plan for Los Angeles

Moving to the 1970s, the General Plan of LA shows the changing attitudes towards social integration, acceptance of the role of multi family homes, and increasingly sophisticated strategies in planning for density. The plan established the following goals:

1. Preserve the low density residential character of LA for all social and ethnic categories.

2. Provide maximum convenience for the occupants of apartments of all social and ethnic categories.

3. Place new residential growth in "centers" to lessen the pressure of development of medium intensity housing (apartments) in suburban areas, so as to reserve them for single family occupancy by families of various income levels[39].

Already, this is a huge break from residential policy as of the 1930's. While

39 Los Angeles Centers Plan. 1970. City of Los Angeles. Department of Planning.

still advocating for the primacy of the single family neighborhood, there is an important associated clause – a mix of incomes. This is a change from the inherent socio economic divisions during the early stages of zoning policy. However, not to speak too soon, the general plan goes on to say, "Essential to the Concept is . . . the rehabilitation of deteriorated single family neighborhoods. Where older single family areas are beyond rehabilitation, they will be rebuilt for the same use, with slightly higher densities being permitted in the same case so as to meet the demands of population growth."

This clause seems to substitute stratifications resulting from income income based value assumptions with stratification of value based on age of housing stock. In fact, older housing can be a reasonable, and of course easily renewable, source of affordable housing. This would have been less troublesome if the document had some insight into the actual causes of said 'deterioration'. The Los Angeles Centers Plan seems to omit the possibility that a cause of deterioration might well be the zoning itself, as single use districts tend to cannibalize themselves over time. Also troublesome is the lack of guidelines on how to quantify the term 'deteriorated'. In fact, going from the given quotation, one might think that merely being old is a sign of deterioration.

Whereas, the Silver Lake community is quite old, with a large percentage of 80 year old structures, it is by no means 'deteriorated' in the eyes of its residents. For example, given the current economic downturn, a neighborhood might 'deteriorate' with several foreclosures in a row, on the block. This is no fault of the community, the zoning policy or the age of the housing stock but simply a reflection of an economic trend. The plan goes on to say that deteriorated single family areas near centers will be replaced with town homes. And that impoverished commercial centers can be replaced by medium density apartments which will increase density, but perhaps not livability. Depending on

the context, removing neighborhood commercial for an increase in residential uses may not serve to create a more walkable, sustainable neighborhood.

Similar to the apartment building boom of the late 1920's permitted by the heavy zoning of multi familiy uses, the 1970s plan allowed for twice as many multi family units as single family ones, a full 1.2 million to 665,000. This was a regulatory reaction to the 1960's urban boom of large apartment buildings associated with 'urban renewal' policies. The figure on the next page shows the intense growth in this building type that Los Angeles underwent during this era.

LOCATION	NUMBER
Sunbelt	
Los Angeles	+444,000
Houston	+296,000
San Francisco	+136,000
San Diego	+121,000
Northeast	
Detroit	+83,000
St. Louis	+55,000
Pittsburgh	+53,000
Buffalo	+12,000

Figure 3-5. Change of number of apartments in 10+ unit structures from 1960 - 1980. U.S. censuses of population and housing.

3.11 CURRENT DRAFT HOUSING ELEMENT OF THE LOS ANGELES COMPREHENSIVE PLAN

The 1970 Centers Plan for Los Angeles allowed so much multi family housing because the city was growing substantially. Today, growth has slowed, but still incurs an approximately 4% increase every 10 years[40]. The proportion of multi family housing being built in the city has continued to climb. The 2006-2014 Housing Element Update calls out that nine out of ten residential building permits

40 City of Los Angeles. Department of Planning. Comprehensive Plan Update 2006-2014. Housing Element.

issued in the city between 2000 and 2006 were for multi family development. As an overall function of the city's housing stock, apartments made up 60%. As 1920's era planners would have been over-joyed to hear, a full quarter of this are the smaller scale structures with four or fewer units, or what would have fallen under the vaulted R-2 zoning back then.[41]

To deal with this projected growth, the Housing Element Plan has a well rounded strategy that includes mixed use, mixed income neighborhoods strategically located at major intersections throughout the city. The idea is to provide as many opportunities as possible in housing, jobs, transit, and amenities for all segments of the population. Like the 1970s Centers Concept Plan, the Housing Element encourages sustainable growth with higher intensity commercial and mixed use districts along boulevards and around transit stations.

> "It is the overall housing goal of the City of Los Angeles to create for all residents, liveable and sustainable neighborhoods with a range of housing types, sizes and costs . . ."

This goal is further broken down into two sub-goals:

1. A rate of housing production and preservation that results in an adequate supply of owner and renter properties that is safe, healthy, and affordable to people of all income levels, race and age.
2. Safe, liveable, and sustainable neighborhoods created through a mix of housing types, quality, and character.

A total transformation from the original planning commission's dual objectives of marketing and objectifying the single family house, these goals represent how far the city has come in its acceptance of a variety of housing types. Also vastly different, is the number of ordinances in place to regulate this vision of "safe, livable, sustainable" neighborhoods. Where as the initial commission came up with three zones and only ended up implementing two, the current commission

41 Ibid.

lists twenty different zones for various multi family densities, seven zones for single family, and further permits apartments in fourteen different commercial and mixed use zones.

In addition to use, the legal text of codes have evolved to specifying a large number of features. Three are particularly important to this thesis, the number of buildings allowed per lot, the on-site parking requirements and the new minimum open space provisions for multi-family structures larger than 6 units.

Table 3-6. Zoning Classifications by Type

TYPE	ZONE
Multi family	RW2; R2; RD 1.5; RD2; RD3; RD4; RD5; RD6; R3; RAS3; R4; RAS4; R5; CR; C1; C1.5; C2; C4; C5; and CM.
Single family	A, RA, RE, RS, R1, RMP and RW1.
Apartments permitted	R2, RD, R3, R4, R5, RAS3, RAS4, CR, C1, C1.5, C2, C4, C5, and CM.

* note, of particular interest, is that the ever-vaulted 'A Zone' is still in regulatory existence.

Table 3-7. The number of buildings allowed per lot

ZONE	DENSITY
A, RA, RE, RS, R1, RZ, and RW1	One dwelling unit per lot
R2 and RW2	Two dwelling units per lot
RD, RMP, R3, RAS, R4, R5, and C	3+ dwelling units per lot, up to 218 units per acre.

Table 3-8. On-site parking requirements

USE	PARKING REQUIREMENTS
Single family lots	Two onsite, covered spaces, with the exception of those created in small lot subdivisions or in hillside overlay districts.
Hillside, single family lots	Two onsite, covered spaces plus one parking space for each 1,000 square feet above 2,500 square feet of floor area.
Multi family lots	One space per dwelling unit of < 3 habitable rooms. One and a half spaces per dwelling unit of 3 habitable rooms. Two spaces per dwelling units of > 3 habitable rooms.*
Subdivisions	One and a half space per unit of guest parking in addition to either the single or multi family requirements.

*note, kitchens count as habitable rooms.

Providing parking represents a significant cost to developers, which affects affordable housing production. Guest parking requirements often act as a constraint on affordable housing development.[42] On smaller or hillside lots, of which the city has many, the cost of a parking space increases significantly if it has to be provided below grade. This often renders a potential project financially unfeasible.

42 Ibid.

Table 3-9. Minimum open space provisions for multi family.

SIZE	OPEN SPACE REQUIRED
New developments with > 6 units	100 square feet for each dwelling with < 3 habitable rooms
	125 square feet for each dwelling with 3 habitable rooms
	175 square feet for each dwelling with > 3 habitable rooms

Long over-due, this open space ordinance was finally adopted in 1997 to provide common open space for the tenants of multi family residential projects. Officially striking down Justice Sutherland's opinion that multi family zones are where businessmen do business, rather than where families live, it lists creating open space for "play areas for children" amongst its lofty goals. In readdressing this issue, the city of Los Angeles is finally exposing and taking official steps to eradicate an eighty year old prejudice. However, these open space requirements are set so low that they are very likely at, or even under, what the real estate market would demand anyway, thus negating the city's attempt at regulation.

In addition to these three sets of clarifying attributes, several additional layers have been added to the residential legal framework. The idea of area specific plans and historic overlay zones add even further regulation to the general zoning ordinances. Specific plan area ordinances are permanent, tailored codes written specifically for the natural, political, economic, and geographic features of an area. Issues addressed include land use, density, FAR, building design, height, landscaping and parking requirements. Historic Protection Overlay zones, which can be placed almost anywhere a city council deems fit,

addresses architectural styling, rather than the number or type of dwellings.

After a foray into the Silver Lake neighborhood to analyze its growth and change though this ever evolving system of legal regulations, chapter six will address flaws in the Los Angeles zoning system that are preventing the city from meeting the goals it laid out for itself in its most current Housing Element plan.

3.12 CONCLUSION

> "Southern CA, once the poster child for sprawl, is being remade into a vast quasi-urban complex that mixes densities and land uses in a way that resembles neither traditional cities nor suburbs."[43]

This complex mixture is a direct result of the real estate industry's increasing desire for control over private property rights in the name of promoting property values. The Los Angeles City Planning Commission, very early on, was willing to undergo a high level of zoning experimentation to be able to lay the groundwork for other interested municipalities. Moving forward, the conflict is between the addition fo a pragmatic tool for zoning evolution that may not ruffle any feathers but doesn't move the city further towards its housing goals or a highly visionary one that risks 'outright rejection, or even irrelevance'.[44] As the Commission grew in authority and sophistication, they increased the number of residential zoning categories from 2 in 1908, 5 in 1920, 8 in 1930, and 27 by 2008. The root of all this differentiation is how to transition between uses and intensities. Despite any increases of sophistication, the questions with each successive regulation remained the same, what to do with the line between neighboring zones; the line where use type A meets use type B.

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43 Soja, Edward. Designing the Post Metropolis. Harvard Design Review. Number 25. Fall 2006. / Winter 2007.

44 Gish, Todd. op. cit. note 36.

CHAPTER 4: CASE STUDIES of WAYS APARTMENTS FIT NEAR SINGLE FAMILY

This section will document the basic forms of residential densification at three scales: the neighborhood, the block, and the lot.

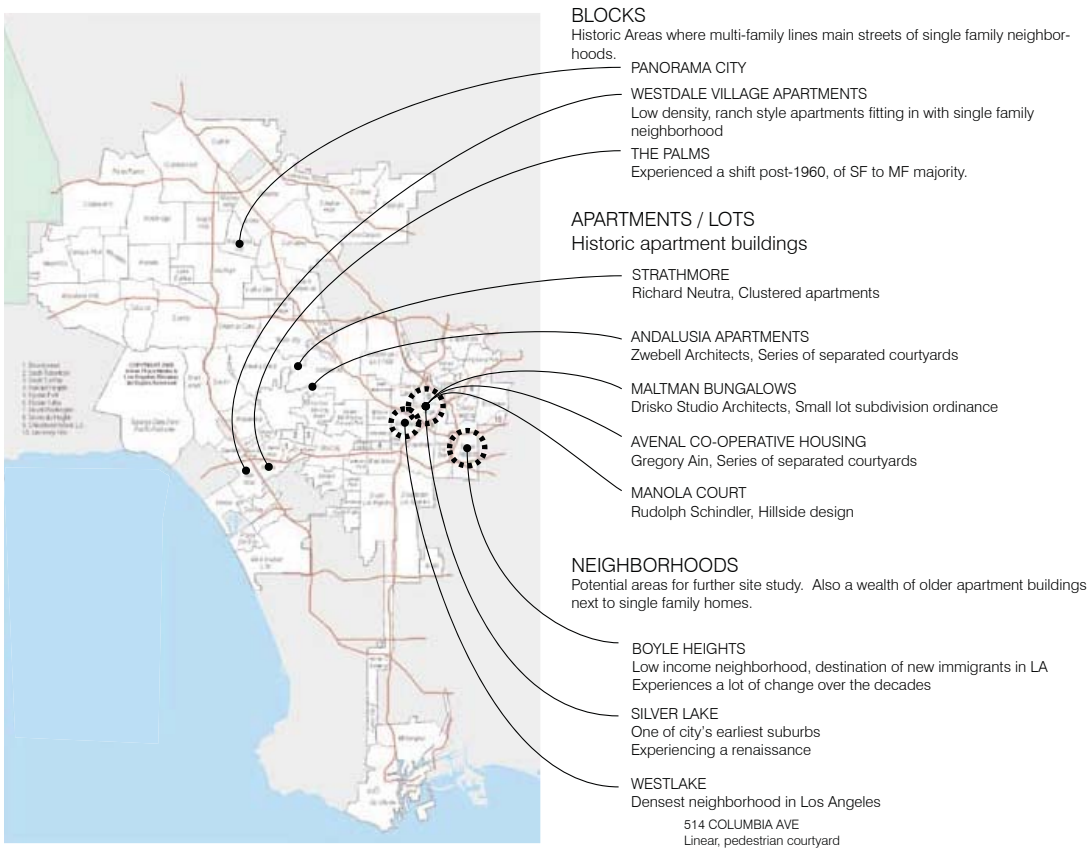


Figure 4-1. Map of Los Angeles, with case studies

The neighborhood detailed is the second oldest residential neighborhood in Los Angeles, Boyle Heights. It is located across the Los Angeles River, adjacent to downtown. It was studied for its vibrant, mixed use corridors that have strengthened over time. It also has an intricate assortment of housing types that

have continually allowed it to welcome a wide variety of newcomers to the city with open arms. This is an example of a "transitional" densification pattern, where multi family dwellings increase in proportion over time, as economic conditions allow.

The section on the residential densification of streets really focuses on primary arteries through neighborhoods that, in accordance with 1930s zoning policy that unrolled stripes of commercially zoned land from downtown to the ocean, along major boulevards. These streets were later permitted to build multi family housing on them as well, and there are several examples of this "initial" type of densification pattern, where multi family dwellings are the first structures to be built in an area.

The section on lot arrangement identifies several apartment buildings designed by locally and nationally famous architects that are known for their ability to engage the hilly Los Angeles area terrain in a creative and sensitive manner. This is particularly important in the ability to develop mixed density neighborhoods.

Figure 4-2. Boyle Heights, view down Cesar Chavez Blvd. towards downtown

4.1 NEIGHBORHOOD SCALE STUDY

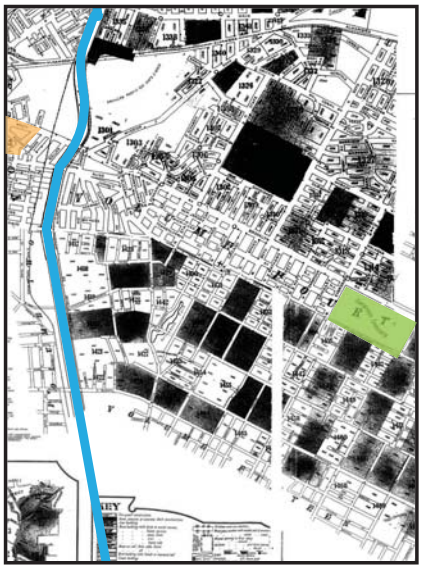
Boyle Heights, one of Los Angeles' first residential suburbs and has long been recognized as a gateway community. It's the traditional destination of new immigrant communities into the city and has experienced lots of change and growth over the decades. There are two components to this growth – the physical component is the street grid and subdivision plan. The social component is the degree to which the neighborhood has been able to comfortably evolve, over time to the changing needs of its inhabitants and the economy.

Sanborn Fire Insurance maps detail the subdivision of Boyle Heights from 1894 to the current day, showcasing growth in four stages; 1894, 1900, 1921, and 1949. Its current state is represented through a cadastral map. Boyle Heights was essentially founded after the first bridge was built over the Los Angeles River in 1870. It was at this point that the area was subdivided into parcels for residences, schools, churches, and parks. A horse drawn "rail system" was constructed to provide affordable transportation and the area was connected via water lines to the city center by end of the 19th century. In 1890, the construction of the Los Angeles Cable Railway system over the First Street Bridge provided additional access[1].

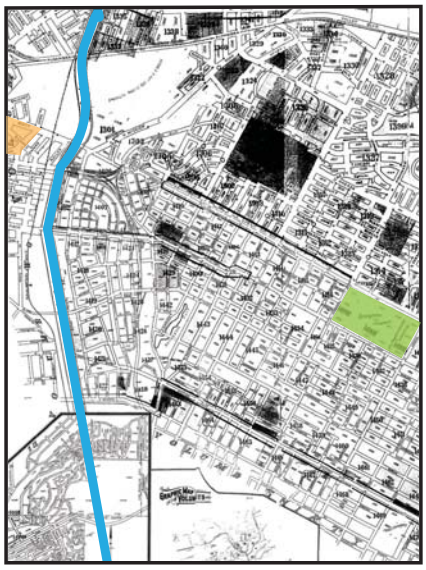
1 Boyle Heights Community Plan Update. City of Los Angeles, Department of Planning. 1998.

1894

1906



1921



1951

Figure 4-3. Sanborn maps showing growth of Boyle Heights

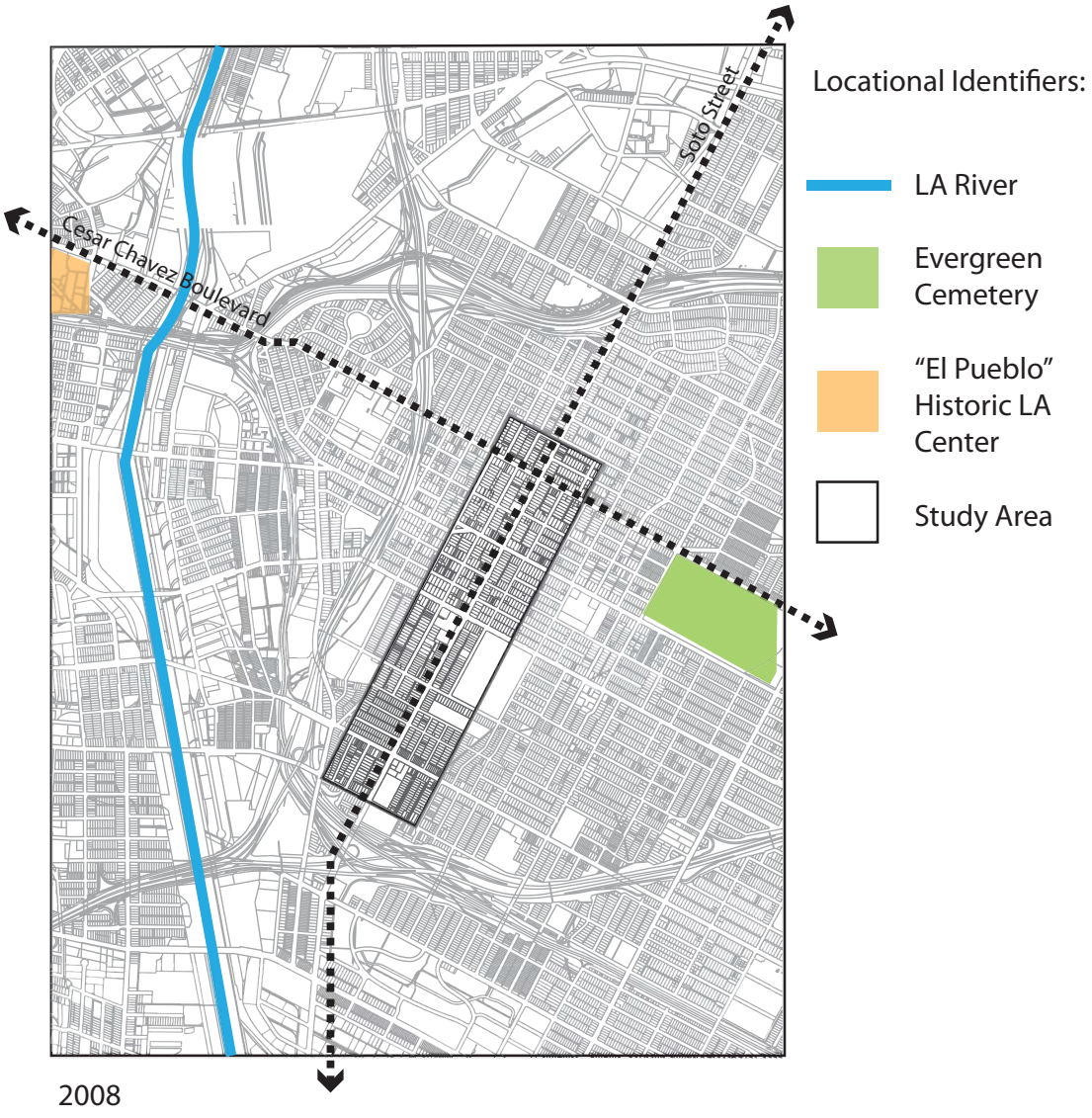


Figure 4-4. Current cadastral map

As Los Angeles expanded into an industrialized city, people moved east of the river towards lower land prices. Also, some of the more western Los Angeles communities had begun to include racial clauses in their neighborhood deed restrictions. Therefore, in order to escape the industrialization of downtown, the only place for minority goups to move was east. Facing population increases and the advent of the personal vehicle, as early as the 1920s, Boyle Heights was experiencing traffic congestion on their streets. City engineers 'improved' roads by taking land from parks. By the 1940s, these same poorly designed roads

helped state planners justify the extensive freeway construction in the area.[2] Two freeways were built in the 1940s and two more in the early 1960s. As a result, the area was segmented into one large area and four smaller ones. [3]

From the 1920s and to the 1950s, Boyle Heights was Los Angeles' most heterogeneous neighborhood, serving as home to a large concentration of Jews, Mexicans, Japanese as well as Russians, Africans and people of Armenian, Italian and Chinese descent. This diversity was made possible in part due to the neighborhood's initial subdivision, flexible lot sizes allowed for a wide variety of neighborhood functions. Even today, the variety of building types and uses for a community its geographical size is much higher than those of newer developments, even those in nearby areas.

Supporting this diversity is one of the highest density populations per square mile in the city of Los Angeles. Yet even with 13,911 persons per square mile (compared to Los Angeles' over all average of 7,068 persons per square mile)[4], Boyle Heights is known for its low scale, residential character.[5] The density is due to small lots, the conversions of older structures and relatively high ratio of persons to units, due to cultural differences of the current demographic. The area was almost entirely subdivided by the 1930's and contains generally smaller lot sizes than the rest of the city. Many are actually categorized as 'substandard' in lot area and width by current Municipal Code standards. [6]

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2 Roth, Matthew. Whittier Boulevard, Sixth Street Bridge, and the Origins of Transportation Exploitation in East Los Angeles. University of Southern California. Journal of Urban History, Vol 30. 2004.

3 Acuna, Rodolfo. A Community Under Siege. Monograph. Los Angeles: Chicano Studies Research Center. University of California, 1984.

4 American Factfinder, United States Census Bureau, Table: "GCT-PH1-R. Population, Housing Units, Area, and Density (geographies ranked by total population): 2000" from Data Set: "Census 2000 Summary File 1 (SF 1) 100-Percent Data", accessed 10 October, 2007.

5 City of Los Angeles Local Statistical Profile. Boyle Heights Community Plan Area. Department of City Planning. 2007.

6 The city current requires a minimum lot width of 50 feet and a minimum area of 5,000 square feet. Many lots in Boyle Heights are only 40 feet in width with an area of 4,000 square feet.

Yet it is these very same lots that have allowed the area to continue serving as the backbone of newcomer's experiences in Los Angeles. A fine grain mix of lot sizes and the resulting flexibility has allowed the area to evolve over time towards the needs of each incoming immigrant population. The neighborhood is one of the most diverse in the city as far as housing typologies and mixes of businesses and residences. It is easy to see why newcomers to a city would feel welcome here, with a heavy mixture of public and private opens spaces and a variety of living situations, from single family houses to tri-plexes and quad-plexes to multi family apartments . There are enough opportunities for people at various ages and income levels.

Boyle Heights
Soto Street Evolution

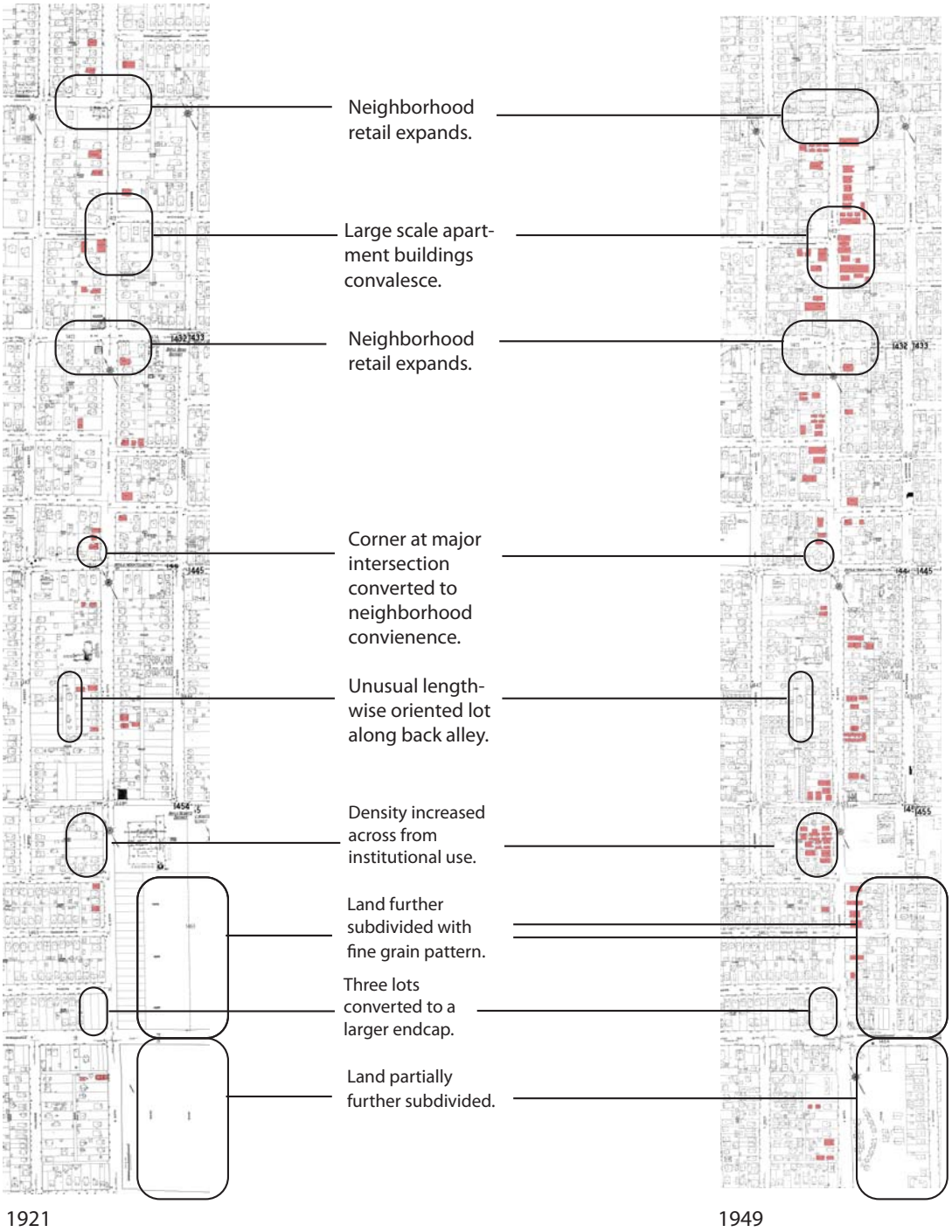

Figure 4-5. Morphological changes between 1921 and 1949.
*Note, shaded buildings denote multi family structures larger than 3 units.

Boyle Heights
Soto Street Evolution

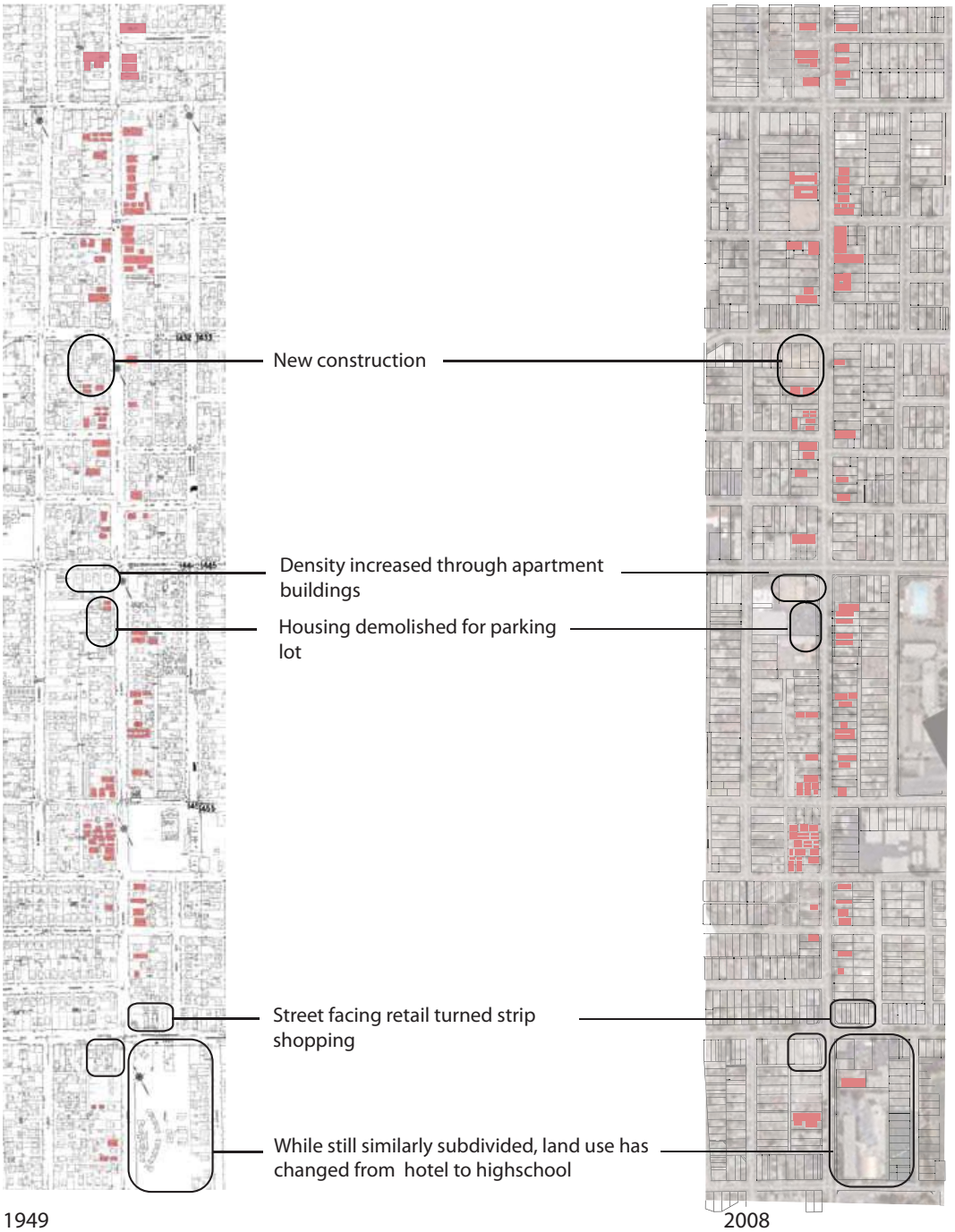

Figure 4-6. Morphological changes between 1949 and 2008.
*Note, shaded buildings denote multi family structures larger than 3 units.

Two streets are key to the area. One, Cesar Chavez Boulevard (previously named Brooklyn Avenue) is the commercial backbone of the community. On typical dual street frontages, one can find a bank, bakery, day nursery, hotel, an auditorium, community center, offices, doctor's clinic, and a private school. The street is a local landmark and vital artery connecting Boyle Heights to its past and to greater Los Angeles. Specifically, it links Los Angeles' original pueblo, downtown, and the main transit hub of Union Station with the greater East LA neighborhood.

Soto Street is the residential backbone of the community. It's the symbolic and social center of neighborhood life and the location for the previously mentioned wide range of housing typologies. On a single block one can find 12-unit apartments, 8-unit apartments, bungalow courts, flats, with still an approximate 30% of lots designated to single family homes.

Figure 4-7. Boyle Heights residential land uses

Pulsating with a constant flow of pedestrian traffic, the corner of Cesar Chaves and Soto is a crossroads and culturally vital intersection. The intersection of these two streets forms the 'heart of east side'. Today, the neighborhood is primarily Latino and it continues to serve as a port of entry for a number of the city's immigrant groups. The permitted densities range from Low Medium I

residential to Medium Density Residential.

According to the area's most recent Community Plan, "Low Medium I" designates two detached single family houses on one lot. "Low Medium II" allows for this plus larger homes converted into apartments or small apartment buildings with a maximum of eight units. The "Medium Density" category designates two story apartment buildings. Most of these buildings are older and nearing the time when massive rehabilitation or outright replacement would be necessary. However they are not likely to be redeveloped as current parking requirements do not allow enough additional units to recoup these costs[7].

The area has been able to remain prominent due to flexible subdivision and zoning practices. According to it's community plan, Boyle Heights is looking to rehabilitate its housing stock, increase affordable housing and increase the amount open space near multi-family housing. A flexible zoning code focused on the gradual evolution fo the neighborhood allows for functionality, density and quality design is key to making these transitions in a way that meets current and future community needs. Zoning must maintain relevance through predictable change in order to promote similar evolutionary variety as in this historic neighborhood.

Figure 4-8. neighborhood view to Century City

7 Boyle Heights Community Plan Update. City of Los Angeles, Department of Planning. 1998.

4.2 BLOCK SCALE STUDY

Mar Vista is an economically diverse neighborhood of apartment buildings and single family homes. Starting as a highly fertile lima bean farm, it's now known as one of the last real middle class neighborhoods within Los Angeles city limits as it contains a sustainable mix of moderately priced homes and rental options.[8] With a population density of 12,539 persons per square mile, the area is more suburban than its neighbors. An estimated 68% of the community's residents live in multi-family housing. [9] This high percentage is belied by lack of on-the-ground perception of density. The neighborhood development pattern concentrates multi family buildings on major through-fares while single family units make up the block's infill. This is due in a large part to the 1940s architectural plans of developer Paul W. Trousdale whose single family homes were so popular that the last ones had to be sold by lottery.[10] By the mid 1950's, the area had fully evolved into a housing tract subdivision.[11]

As an example of the 'boulevard land use issue' brought up in Chapter Two, looking at the zoning diagram along National Boulevard, one can see a pattern emerge. Built up almost entirely in the three year spanbetween 1948 and 1951, National Boulevard is zoned mainly multi family (orange) at the periphery of single family blocks. Commercial is designated at the corners of major intersections. These streets were laid out in the 1930's land use template.[12]

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8 The median price for a home in Mar Vista currently stands around $250,000. While the overall City of Los Angeles median rests at $400,000. http://ww.city-data.com/forum/los-angeles/410720-mar-vista.html.

9 City of Los Angeles Local Statistical Profile. Palms – Mar Vista – Marina del Rey Community Plan Area. Department of City Planning. 2007.

10 Groves, Martha. Living on the Edge of Landmark Status. Los Angeles Times. November 18, 2005. B-1.

11 Lesel, Helene. More Family Friendly than Westside Trendy. Los Angeles Times. October 30, 2005.

12 Gish, Todd. Building Los Angeles: Urban Housing in the Suburban Metropolis, 1900-1936. PhD Dissertation, University of Southern California, Los Angeles. August 2007. p. 379.

Figure 4-9. National Boulevard Street zoning map

Along this strip is a development known as the Westdale Village apartments. Containing one and two bedroom units, they are an example of the ranch style adopted towards multiple family housing. Character-defining features of the Ranch house include its one-story configuration, L-shaped plan, low-pitch roof, horizontal massing, and large divided-light windows. The result is each unit is offered direct access to a landscaped courtyard, replicating the relationship of the single family house to its private yard.[13]

13 McAvoy, Christy and Fowler, Kari. Westdale Village Courtyard Apartments. Historic Resources Group, Nomination Letter. October 2005.

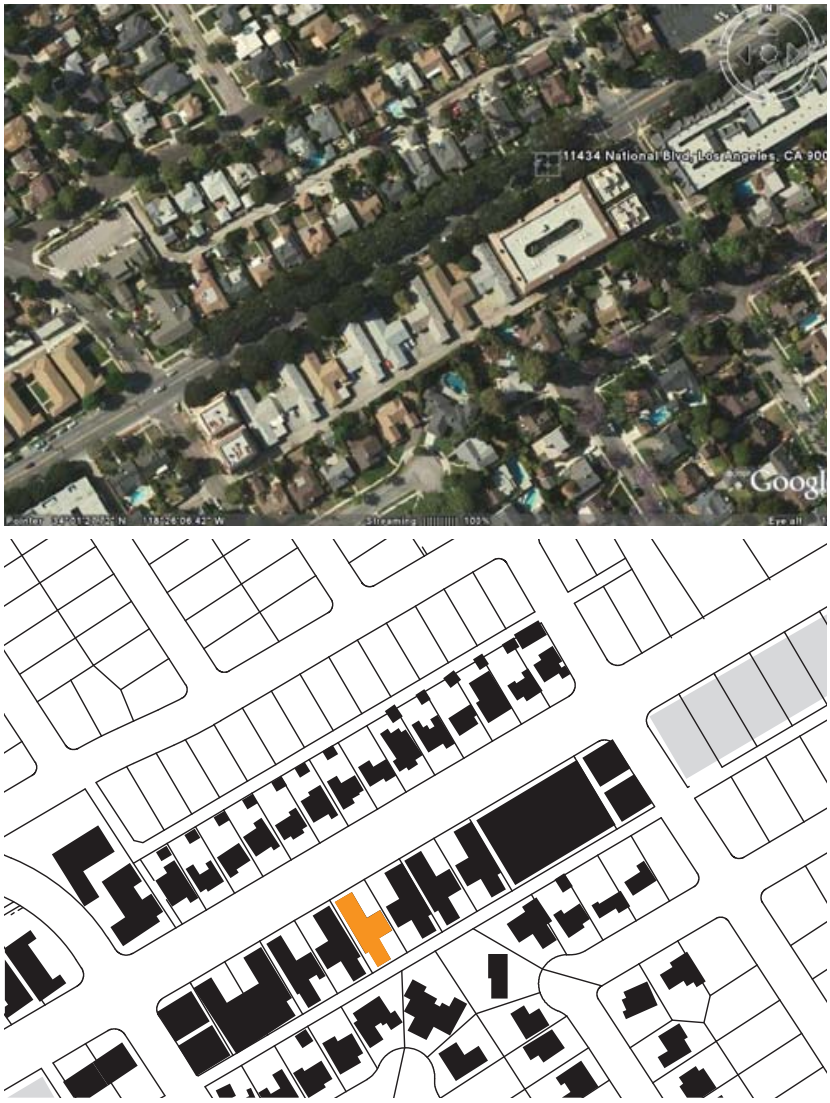


Figure 4-10. Current cadastral map of Westdale Village

This apartment zone, carefully buffering single family homes behind it, was the outcome of lessons learned from the zoning struggles of the previous decade. The limited commercial corner was another such insight. However, multi family housing was arguably the most important device used by planners in their attempt to order the urban environment. Both fulfilling the need to house the masses and acting as a liaison between what they deemed disparate land uses, higher density residential zoning was key to creating a carefully arranged, harmonious and profitable landscape.

Other examples of the boulevard land use issue are located in Panorama City. The Panorama City Historic District, developed in 1948 by Fritz B. Burns and Henry J. Kaiser, was determined eligible as one of the earliest and most influential examples of modern community planning.[14] Both were designed in the post-war era and contain low scale multiple family residences designed to complement the single family neighborhood behind.

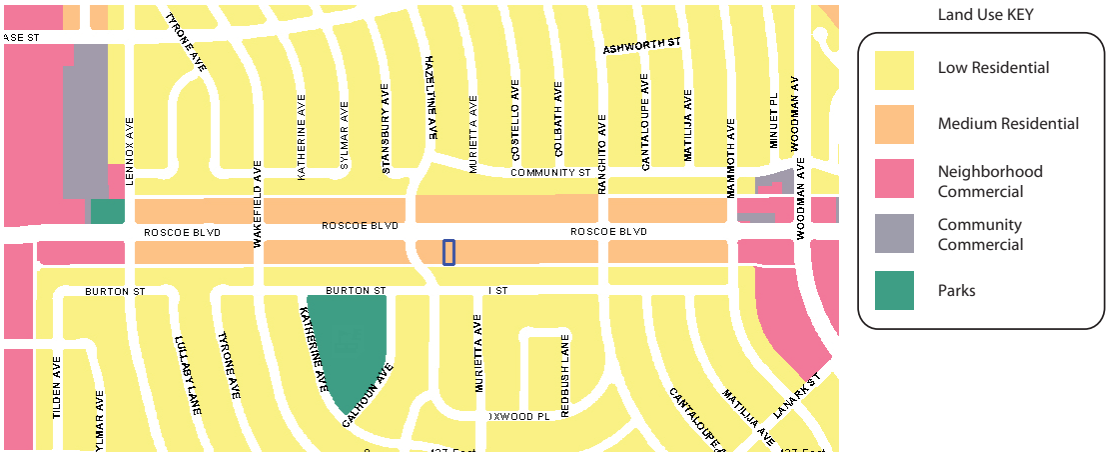


Figure 4-11. Panorama City, Roscoe Blvd zoning map

14 McAvoy, Christy and Fowler, Kari. Westdale Village Courtyard Apartments. Historic Resources Group, Nomination Letter. October 2005.

Figure 4-12. Roscoe Blvd Apartment's aerial image and cadastral map

4.3 LOT ARRANGEMENT STUDY

This next section moves downward in scale from neighborhoods, to blocks, to buildings. But even by the mid 1920s, after many years of significant population growth and area expansion, LA was no stranger to several kinds of multi-family housing. But even by the city's residential landscape was extraordinarily diverse. Walking down a typical street in 1915 one might find houses, a bungalow court, a four family flat and a three story apartment building all on one block. Mixed in with these residences might be several small stores, a funeral parlour, laundries,

and even agricultural uses such as horse stables. All this building variety has been obscured in Los Angeles by the narrow focus of city real estate boosters and their emphasis on the city's single family homes[15].

Variety in residential structures also includes a building's age, quality, density, amenity, location or occupancy. However, one of the best ways to think about scale and density is by looking at dwelling types and lot arrangement. This section focuses on several popular forms of multi-family housing in LA's residential landscape. Examples discussed are the includes the Manola Court by Rudolph Schindler (clustered buildings, 1926), the Andalusia Apartments by Zwebell Archiects (series of separated courtyards, 1926), the Maltman Bungalows (bungalow courts, 1926), and the Avenal Cooperative Housing project by Gregory Ain (attached, multi story with central courtyard, 1947).

15 Weiss, Marc. The Rise of the Community Builders: The American Real Esate Industry and Urban Land Planning (New York: Columbia University Press, 1987).

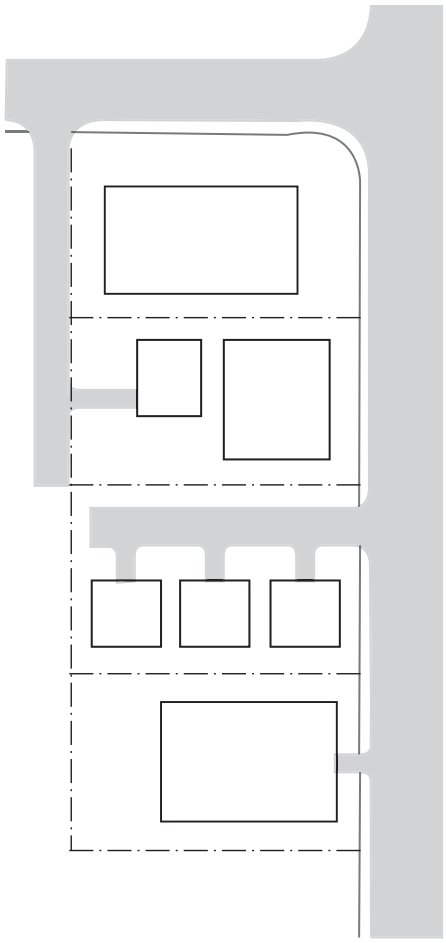


Figure 4-13. Access Methods Diagram

MANOLA COURT

Located at 1811 Edgecliff Drive, these units are accessed through the front. The lots take up an entire block width and is bisected by a pedestrian walk way. With sixteen units on 0.38 acres, there are approximately 42 du/acre. The relative density is high but via the interior pedestrian walkway, a sense of community is created by interconnected outdoor living spaces. Each unit has its own outdoor entrance and garden. Built in 1926 and designed by Rudolph Schindler, it is

reminiscent in character and pedestrian experience to medieval European hill towns. The earliest building on site, is a U-shaped plan, enclosing an exterior courtyard.

Figure 4-14. Photographs, Manola street face

Figure 4-15. Aerial view + subdivision grid, Manola Courts

ANDALUSIA APARTMENTS

The Andalusia Apartment building at 1471 Havenhurst Drive was built in 1926. It has three court yards of varying levels of privacy; a paved one for cars, a Spanish style guest patio under a breezeway, and a private interior courtyard, shared by the residents. All three courtyards are richly landscaped in the Spanish

Revival tradition. The inclusion of courtyards with varying levels of public /private interaction is intriguing because of its contributions to the neighborhood street life. The more publicly accessible, paved car port resembles the driveway or front lawn of a traditional single family home, but with its semi-enclosed nature retains privacy for the residents without completely taking important place of public / private interaction away.

Figure 4-16. Photographs, Andalusia street face

Figure 4-17. Aerial view + subdivision grid, Andalusia

MALTMAN BUNGALOWS

The Maltman Bunglaows are located between 918 and 928 Maltman Avenue. Built in 1926, they represent the original affordable housing scenario. Tiny, one or two bedroom houses on a single lot, arranged along a linear courtyard, they were first catalogued by urban reformer Emory Bogardus in 1916.[16] The type was a bottom up improvement in the problematic shack court made popular by the lower classes and a more affordable variant of the single family home.

Each house has an attached garage on one side and a common garden that it shares with its neighboring unit, on the other. For those who desire this type of living environment, this site layout greatly enhances the simple, social rituals that improve quality of life and strengthen neighborhood resolve to maintain and restore their property to the highest standards. The two street facing units are designed as typical porch dominated houses with the same setbacks as the rest of the homes on the street. The result is a seamless incorporation of sustainable, higher density development into a neighborhood.

However, these bungalows, like many others in the city, suffered from disrepair by the 1990's. In an effort to improve housing choice and affordability, city planners developed the Small-Lot Subdivision Ordinance, which passed in 2004. In neighborhoods already zoned for multifamily housing, the ordinance allows single-family houses to be built—or existing rental units like the ones on Maltman to be converted to single-family status—on individual lots smaller than 5,000 square feet. Though the ordinance was written partly to promote construction of new bungalow courts, existing courtyard complexes could also be converted into a row of modest single-family houses[17].

16 Emory Bogardus, The House Court Problem. American Journal of Sociology. November 1916, 392-296.

17 Hawthorne, Christopher. Maltman Bungalows by Drisko Studio Architects. Architecture Record. April 2008.

Figure 4-18. Photographs, Maltman courtyard view

Figure 4-19. Aerial view + subdivision grid, Maltman Courts

AVENAL COOPERATIVE HOUSING

The Avenal Cooperative Housing Project, designed in 1947 by Gregory Ain contains a generous central courtyard with a view from a private patio for each of the units. Ain also provided for private courtyards for each of the relatively small units. They feel larger than they are however with their open floor plans and frequent use of glass that blend indoor and outdoor spaces.

All of these buildings have stood the test of time, and their beauty can be measured by both their continuing success in the market over the generations and by their inclusion in lists of cultural significant buildings. Their positive social

consequences continue to enrich the lives of those who live in them.[18] These structures showcase many lessons for urban neighborhood designs.

Figure 4-20. Photographs, Avenal street and courtyard views

Figure 4-21. Aerial view + subdivision grid, Avenal

Residential densification occurs naturally when a mix of building typologies enter the local lexicon over time. One of the findings of chapter two was that apartment buildings have been considered an important part of the supposedly bungalow-obsessed minds of Los Angeles planners. This was important for the additional discovery that apartment units were categorized into an assortment of typologies that elicited a number of reactions and attitudes which helped guide land use policy.

18 Old House Journal, Volume 30, Number 3, May/June 2002

This chapter explored the ways those typologies fit into their environment as the definition of attractive, low density residential development expanded to include small, multiple dwellings. Boyle Heights helps us understand that residents, rather than forming a monolithic block of demand actually have a diverse array of interests with different incomes and domestic objectives. Mar Vista and Panorma City help explain how as planners became more experienced and technically proficient, they came to consider urban spaces with more nuance. And the architecture of Schindler, Zwebell, and Ain showcase ways to harness the terrain in creating context sensitive density.

CHAPTER 5: SILVER LAKE EVOLUTIONARY PROCESS

The in-depth Los Angeles area research focused on the historic Silver Lake neighborhood, located north and slightly west of downtown. Silver Lake is a community that has been allowed to evolve over time to include a variety of housing types and functions, exemplifing housing availability, affordability, and choice. It is also a prime example of the benefits of increased density such as neighborhood commercial functions. Thus, the research focuses its scope on the following objectives:

- Identifying distinct spatial structures and functional patterns in Silver Lake.
- Classify development by lot arrangement, street width, building type and topological features.
- To examine the processes in which the neighborhood evolves based on individual physical elements and functions.
- Evidence of under what zoning codes the neighborhood evolved.

In this survey, three distinguished time periods are identified with regard to the events and subsequent impacts on physical form and functional patters of the area, and are as follows:

- until 1920: Pre-residential zoning policies.
- 1921 – 1930: Los Angeles Planning Commission developed and begins regulating in three zones, industrial, residential and commercial.
- 1931 – 1970: Distinctions added to the zoning policies to allow for transitions between zones. There are now 8 residential zoning classifications, with multi-family zones treated as commercial properties.
- 1971 – Today: There are now 27 residential zoning classifications.

I chose two tiers of areas to study; a larger area from which I catalogued an array of housing types and locations and a smaller area from which I analyzed the area's growth and change over time.

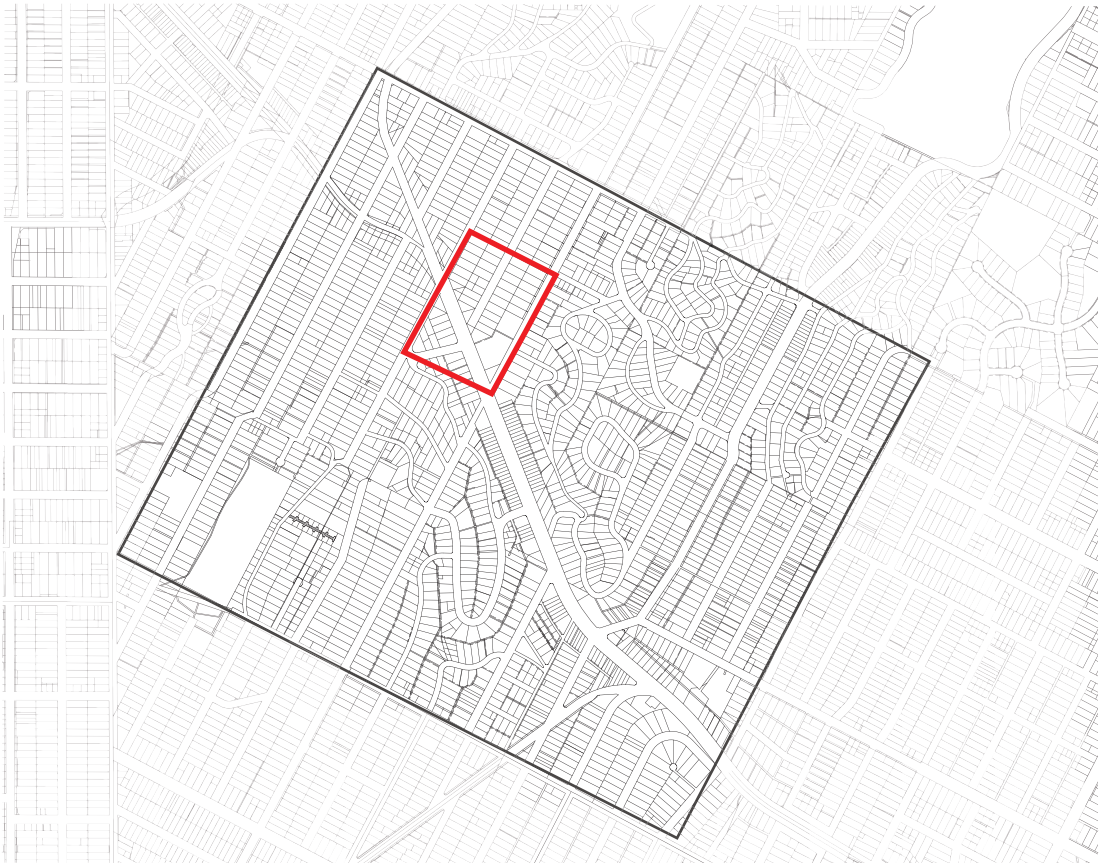


Figure 5-1. Map of overlapping large and small study areas

5.1 LARGE STUDY AREA METHODOLOGY

The multi family housing catalogue of the larger study area includes analysis of five building types, four lot arrangements, four street types, and three topological configurations. Each of these contributes something different to the discourse of whether multi family housing "fits" in a particular neighborhood.

Apartments that were chosen for analysis and categorization are flanked on one or both sides by a single family house. Upon being divided up into categories, the units were then either chosen as that category's primary example or as a supporting example to show varying levels of prominence of

that type in the neighborhood. For these secondary examples, information was collected on:

- building date, to be able to identify which sets of legal restrictions the development of the property came in under;
- the number of units and lot size to determine statistical density;
- and the current zoning ordinance under which the property falls, in order to understand if it is currently an exception to the rule.

The primary examples were subjected to a more rigorous study that includes:

- A street frontage analysis with a dimensioned, section diagram of the transition between the public street, the semi-private yard, and the private home interior. It also contains three diagrammatic elevations, one of the building in question and one each of its same street neighbors. These drawings are to show scale, style, and type of semi-publicly accessible open space of various apartment varieties.
- A block evolution study which is meant to display the simultaneous nature of single and multi family growth in 'traditional' neighborhoods. Included is a locational key map that highlights the building in question in the context of its block. This map is then enlarged, colorized by building use, and repeated at three set points in time, 1919, 1950, and 2008. Each map is accompanied by a statistical reference to the number of dwelling units per acre on the building's street. This is meant to showcase the street's acceptance of increased density as part of its overall pattern of evolution.
- A plan view, building relationship comparison drawing which is meant to compare the building's arrangement on its lot with that of its neighbors. Front and side yard setbacks are called out, along with alleys, if they exist, and the number of onsite parking spaces, if any. The street right of way width, parking

capacity, typical lot dimensions, distance between neighbors, percent of lot coverage, sidewalk width, and amount of public and private landscaping are all noted.

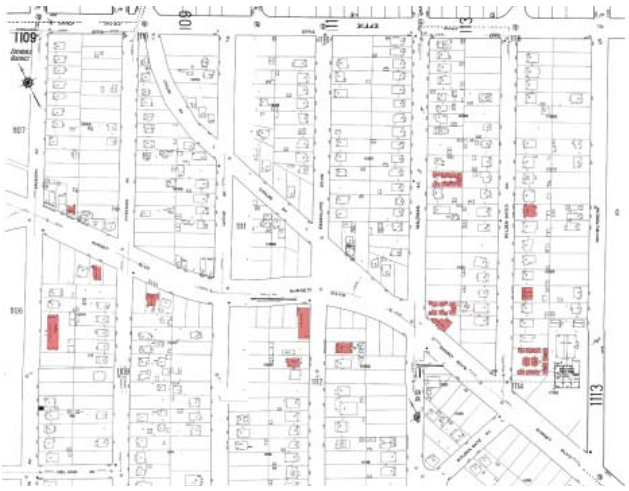
5.2 SMALL STUDY AREA METHODOLOGY

The smaller study area looks at the Sunset / Childs Heights node of Silver Lake from Effie Street on the north, to Micheltorena on the east, and Sanborn on the west. This part of the neighborhood is meant to provide a sampling of Silver Lake's incremental and dispersed manner of individual spatial improvements rather than larger scale development. This has provided the area with a sustainable human scale and livable socio-cultural identity.

The study is broken down into a series of elements. Elements are characteristics such as building type, lot configuration, street hierarchy, and topography. They are catalogued over time into the 'processes' that shaped the study area, which are then highlighted on a neighborhood change map. Finally, the resulting density 'lessons' in function, increments, context and diversity are laid out.

The idea is that by studying the morphology and development patterns of Silver Lake one can make the case for the intrinsic flexibility of a traditional, mixed use neighborhood due to its ability to evolve over time in its pre-existing, fine grain subdivision framework. The goal is to showcase that the individual lot density is not the issue, but the overall character of the neighborhood is. Higher densities can successfully support quality of life amenities such as neighborhood retail and programmable green space better than low density development, although both are necessary for creating neighborhood character.

Silver Lake Study Area
Neighborhood Evolution



1919

1950

2008

Figure 5-2. Small area sanborn + current cadastral, multi family marked

Silver Lake Study Area
Evolutionary Patterns

PROCESS ONE	Physical	At the corner of Sunset an dMicheltorena, many small lots (50′ x 130′) are merged into a large building parcel (144′ x 330′).
	Functional	Small retail, detached houses are scrapped and replaced with institutional uses.
PROCESS TWO	Physical	At the central portion of Micheltorena, several small to medium size (60′ x 130′ and 60′ x 150′) lots are assembled with building lots adjoining their back boundaries into larger and deeper parcels.
	Functional	Small detached houses are replaced with larger apartments. Also parking lots are generated.
PROCESS THREE	Physical	A distinct cluster of basic module building lots (60′ x 130′) remain in almost the same condition with little changes.
	Functional	Small, textured detached houses keep maintaining their original uses and provide fine-grain neighborhood spaces. Original backyard spaces are availble for infill if necessary.
PROCESS FOUR	Physical	A single, medium size vacant lot (80′ x 150′) remains the sam esize with no subdivision in 2008 and is filled with one large and another medium sized building.
	Functional	A large industrial building and a medium size warehouse incorporating service functions are built.
PROCESS FIVE	Physical	A row of very small lots (25′ x 100′) on Sunset boulevard has undergone some physical module changes based on parcel-assemblies.
	Functional	A community of various use buildings including detached housess, sevice shops, warehouses and clubs becomes a new type of live-work neighborhood space incorporating loft buildings, home based manufactories, and business service shops.
PROCESS SIX	Physical	At the southern end of Hyperion, several small building lots (50′ x 125′) are assembled into a large parcel (124′ x 150′) and several medium sized ones (75′ x 125′).
	Functional	Small detached houses on Hperion are turned into a string of box apartment buildings. A vacant lot serves as parking until 1999.

Figure 5-3. Inferences made in small area.

5.3 MORPHOLOGICAL STUDY ELEMENTS

The first step in a morphological study is to identify the types of spaces which compose the area. In Silver Lake, these components create a diverse set of spatial elements. These elements were further explored by investigating changes in building type, use, and lot configuration. These elements are then further divided into two categories, permanent and evolving. Permanent elements have remained in place over the duration of the study period to serve either a residential or local commercial function. Evolving elements are located on lots that have provided flexible rooms for new buildings and enhanced the neighborhood's adaptability[1].

Through the course of the Silver Lake morphology study, the mixed use

1 Agria, Takashi. Morphology, Sustainable Evolution of Inner-Urban Neighborhoods in San Francisco. University of Nagoya Furo-cho. 2005.

neighborhood has evolved in a contextual manner that has maintained traditional spatial types while accommodating new combinations of uses. This has been accomplished through the spatial subdivision process and its resulting functional flexibility. Silver Lake has small scale building lots that form a fine grained pattern with clear street hierarchy. The typical lot size is 50' x 150'. Narrow alleyways are included on several blocks for 'back of house' functions and rear-access to small buildings on these alleyways provides a grander and more pedestrian friendly streetscape for residents. Larger buildings front on wider main streets to allow the neighborhood to serve city-scaled needs. This system of integrating both small and large scale buildings with alleys, secondary and main streets has led to the spatial continuity and functional integrity of the neighborhood.

Silver Lake
Growth Process

1919

1950

Figure 5-4. Silver Lake growth in multi family structures

Economically, this is a highly desirable area with very few vacant lots or empty parking areas. Residential buildings, of both owner and renter varieties, have maintained occupants, making the neighborhood livable, diverse, and safe. And local community based business enhance the variety of common interactions between residents and their neighborhood.

A look at Silver Lake's cadastral map shows several unique subdivision processes as they occured over a 90+ year timeframe. A look at the analysis map shows a well defined street grid with variations when required by topography. The three boulevards form the most primary streets and are flanked on most sides by retail uses. Community focal points occur at their junctions: Sunset Blvd and Griffith Park Blvd and at the north end of Silver Lake Blvd, near the resivoir. Both of these areas have widened sidewalks and street trees, making for a unique pedestiran experience.

Los Angeles has implemented two recent changes to their residential zoning ordinances in response for more sustainable communities. One includes 'up-zoning' regulations, hoping to encourage the adaptive reuse of older buildings. The ordinance includes Chinatown, Lincoln Heights, Hollywood and Koreatown. Incentives include expedited review, exemption from FAR, height, setbacks, parking and loading spaces. This ordinance has already had a tremendous impact.

Another ordinance reuses underutilized lots via Town homes. This revises several zoning codes to permit development of town homes on multifamily land. The language is written to also include a series of buildings with no common walls or open space. The resulting structures can not exceed existing zoning density, yet they have reduced setback requirements, a minimum lot width of 16ft, and a 20% open space requirement. The minimum lot size changes from 5000sq ft to

600sq ft[2].

Both of these regulations address some of the barriers to recycling smaller, urban lots. They create an increase in homeownership opportunities by reducing amount of costly land required for single family homes and increases the opportunities for small scale developers and land owners.

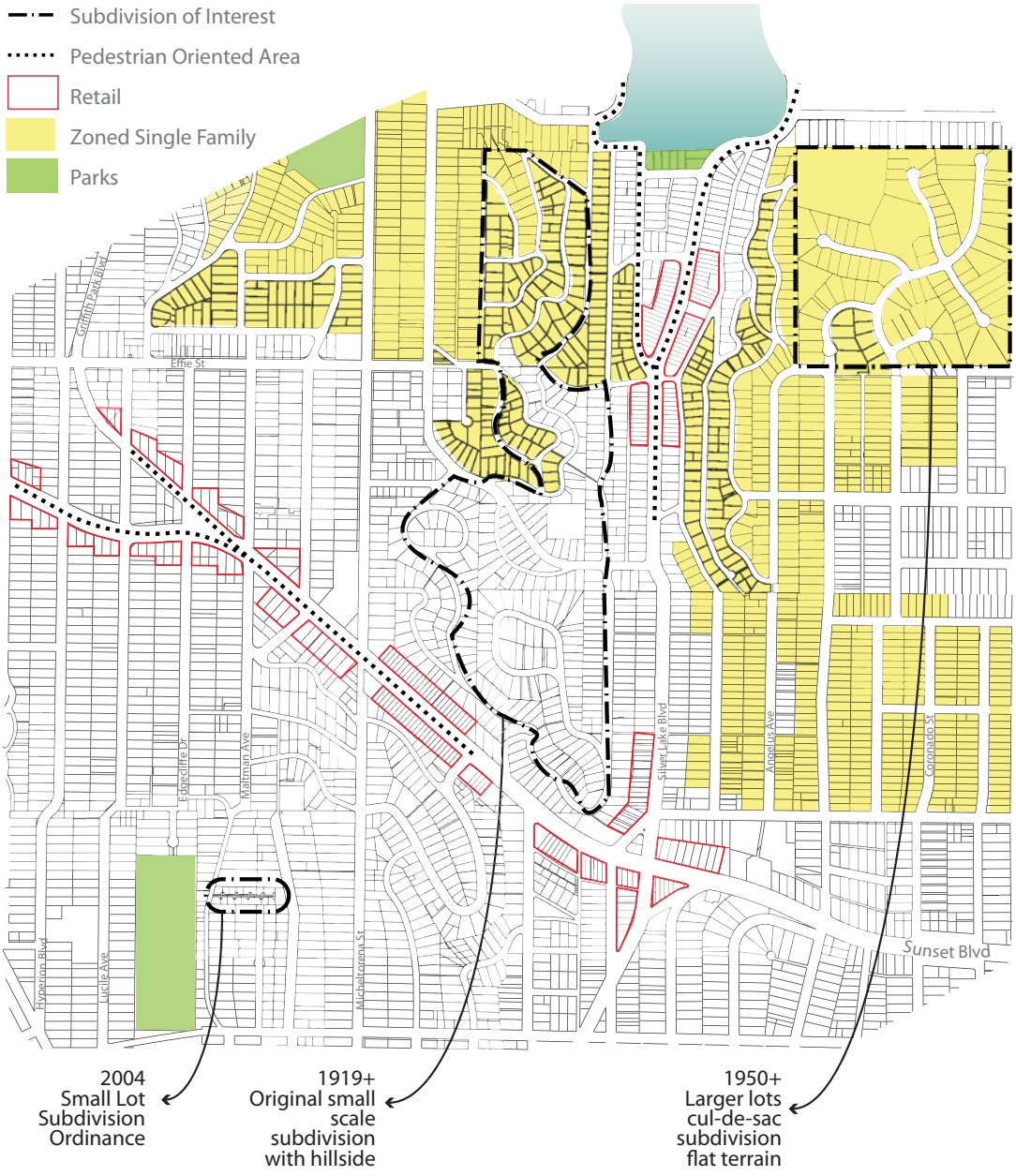


Figure 5-5. Map of subdivision evolution and current single family zones

2 White, Sarah. Housing the City: Density Toolbox. University of California, Los Angeles. 2005.

Silver Lake is known for its hilly topography. In fact, some of its most popular community spaces revolve around sets of nearly hidden stair cases that divide lots to connect streets at the bottom and tops of the rolling hills. The city-owned concrete steps scattered across Silver Lake were built mostly in the mid-1920s as developers began to build upward into the hills. They lead down to former transit points for the storied Red Cars of the Pacific Electric Railway, a onetime network of rail lines and streetcars.

Figure 5-6. Silver Lake topography map, 1969, with main boulevards and parks

Because of this often drastic variations in terrain, architects and developers in Silver Lake have had to contend with topography since the inception of the neighborhood. Therefore, some unique building typologies have developed around this constraining factor.

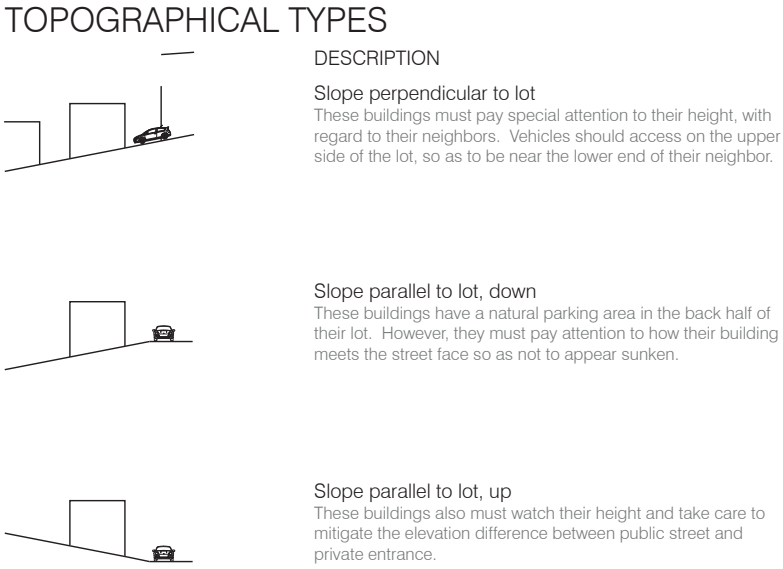


Figure 5-7. Hill typology diagram

5.6 BUILDING TYPOLOGY STUDY ELEMENTS

Building typology and the way buildings relate with the street infuence the character of a neighborhood. Earlier research on the spatial conditions of neighborhoods, blocks, and lots showed that an assortment of building typologies leed to successful neighborhoods. This section discusses more extensive research into how various building typologies are integrated into a block structure and how additional density was integrated into the block over a period of time.

The idea of the block as a neighborhood scaled entity with which to understand various infrastructional capacities and therefore potential density measures depends largely on the building types that inhabit the street. Building typology also plays a crucial role in terms of a combination of quality open

spaces, the ‘walls’ of the street through how closely front facades follow the build-to line, and the adjacency and visibility between indoor and outdoor spaces on the ground foor level of each residence.

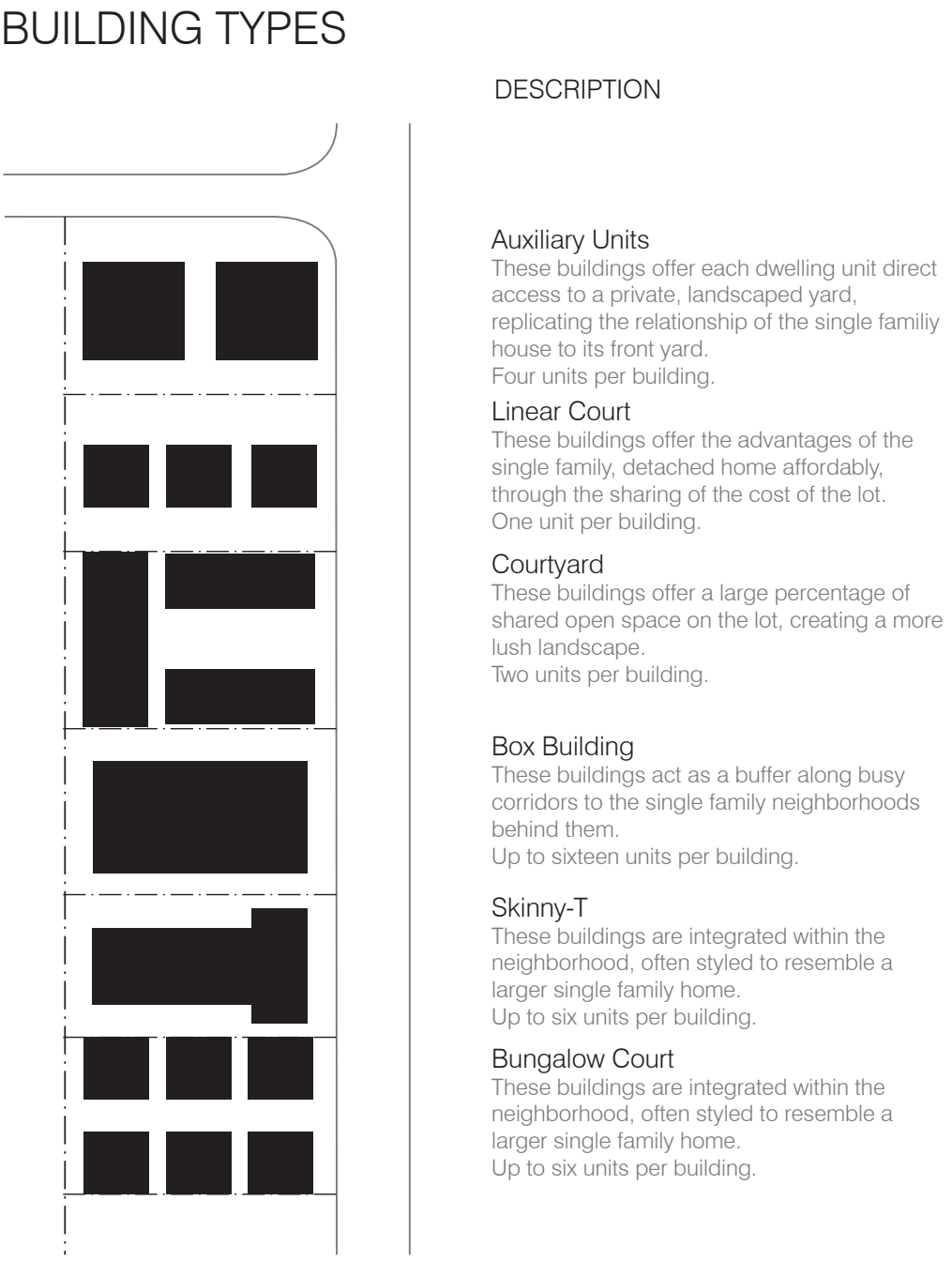


Figure 5-8. Building Diagrams

5.7 BUILDING TYPOLOGY: BOX

The apartments I've selected to represent the 'box' style typology were built in the decade between 1922 and 1933. Between these years, the City of Los Angeles Planning Commission increased the number of residential zones from five to eight. They were primarly designed by local architects immitating a mediterranean style. Despite their bulk, their facades are proportioned and scaled immaculately. Their doors and windows are delineated to resemble a single family entrance. Two have gardens that are native in response to Calfornian climate and flora, and the other two are at least contextual with their neighbors. These apartments have survived almost a century of heavy use by residents because of their intelligent and simple design.

The typology is best described in plan as one or two units on either side of a central hall, likely two stories. This basic building envelope was wrapped with expressive constructed elements that gives each 'box' a special form and identity. Their density range is staggering, with such similar lot arrangements, they vary between 19 and 94 dwelling units per acre. Their interiors offer clear distinctions between private, public and service space. Today these buildings offer a several valuable urbanist lessons:

- Public/ Private transition as essential to humanizing larger structures.
- Where vehicles access the lot is important. In architecture it is often asked, "How does the building hit the ground?" In Urban Design, the question should be, "How does the car / bike / bus access the lot?"
- Importance of landscaping and build to lines in forming quality public street space.
- Lot density, as defined by dwelling units per acre, is not discernable from pure curb appeal. In general, the public understands form better than they understand calculated FAR ratios.

BOX STYLE | MULTI FAMILY

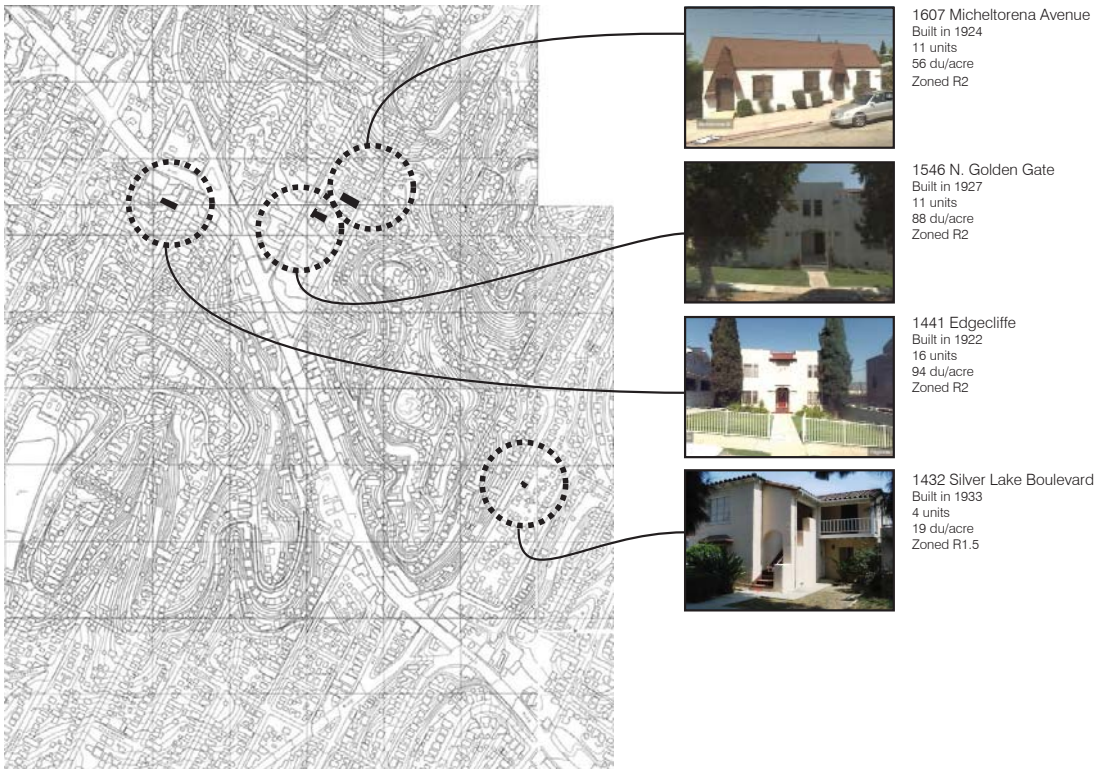
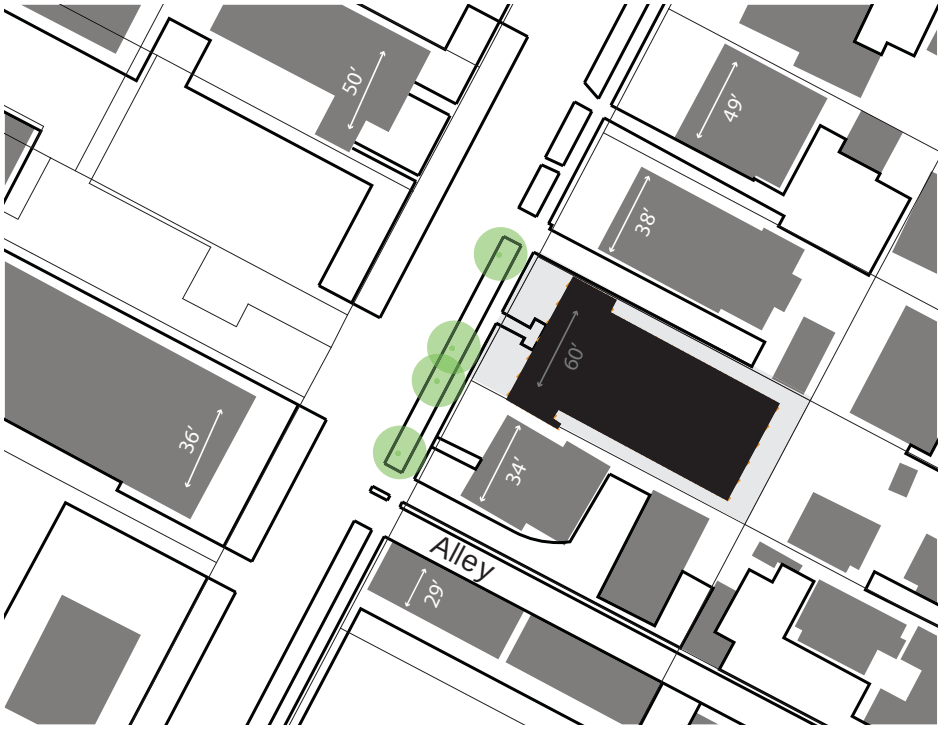


Figure 5-9. Building Typology Map: Box

To start with, the 1546 North Golden Gate Avenue address. This lot is fronting a street with a 60ft right of way, classifying it as a'primary neighborhood street'. Typical front setbacks are 20 ft, or half the width of the drive aisle. The streetscape is articulated with an average amount of trees. The combination of nearby front yards gives the impression of a shared strip of green way to the north. Towards the south, an alley divides the street length from uses supplementary to the nearby church.

1546 N. Golden Gate Ave
88 dwelling units per acre



STREET

Street Width	40 feet
Sidewalk Width	8 and 12 feet
R.O.W	60 feet
Parking	Street, both sides
Traffic	Two-way

NEIGHBORHOOD

Moderate Public Realm Landscaping	
Minimal Private Realm Landscaping	
Distance between neighbors	15 ft
Lot dimensions	132 x 60'

BUILDING
(1)

# Units	16 units	Dwellings / Acre	88 du/acre
Building Size	10,134 sq ft		
Parcel size	0.182 acres	Appx +/- 600 sf / du	
Lot Coverage	65.0 %		

Figure 5-10. Plan Diagram for Golden Gate Unit
* note, no on-site vehicular access

Neighborhood Evolution

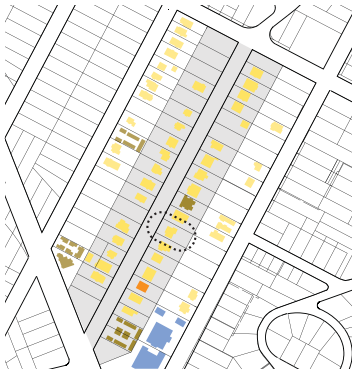
BLOCK

Front Yard Setback	20 ft
Side Yard Setback	None
Alley	None
Available Parking	116 spaces

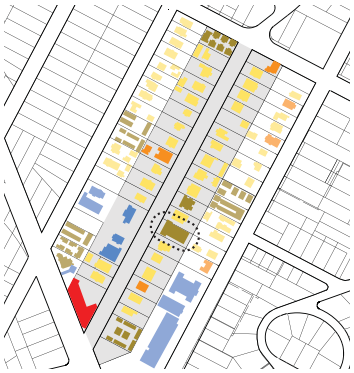
TAX INFO

Year Built	1927
2008 Taxes	$12,835
Land value	$247,728

Addresses:
1546 N GOLDEN GATE AVE 90026



1919
5.3 dwellings per acre



1950
6.3 dwellings per acre

2008
9.0 dwellings per acre

Figure 5-11. Neighborbood Evolution for the Golden Gate Block
*note, 9.0 du/acre for 116 available parking spaces creates an on-street parking situation with 1.37 spaces per dwelling unit

A morphological study of the Golden Gate block reveals an approximate 70% increase in dwelling units per acre over a time period of ninety years. This

increase in allows for a variety of functional flexibility through its physically adaptable subdivision. A sustainable manner of evolution has ocurred through the maintence of fine-grained neighborhood spaces and new types of side by side mixed uses. The Golden Gate block study has revealed the following attributes:

- Multi-family units are placed first on corners, and then on block interiors.
- Institutional uses deemed benefitial to the community (churches, schools) are allowed to expand.
- Neighborhood retail appears after 6 du/acre, and parking is placed to the rear.
- The first houses on the block define the build to line.

Figure 5-12. Amenities provided by additional density in the Golden Gate block.

In the Golden Gate scenario, cars are parked on the street. Without excessive curb cuts, the box apartment building is a seamless incorporation of density into the neighborhood. A box style apartment next to a single-family home is an unobtrusive increase of density of anywhere from three to fifteen times a single

family home on the same lot. This design was so simple to repeat that they are commonly found interspersed between single and dual familly homes on mixed density southern Californian blocks. Many, built during the Art Deco period, are on the Historic Register. Their positive contributions to a neighborhood of adding attainable housing options to a variety of income levels confirm them as a region-wide opportunity in the affordable housing crisis.

Building Type | Box

Figure 5-13. Public Private Transition Sketches for Golden Gate Unit

5.6 BUILDING TYPOLOGY: COURTYARD

The apartments I've selected to represent the 'detached courtyard' typology were built between 1917 and 1929. During this time period there were five residential zones. This typology is defined through a pairing of separated building units and a central courtyard. Adding a unique sense of community, the common garden serves to unite the individual dwelling units through simple, everyday social rituals. The pair facing the street are often designed as two single family homes with no more or less space between them than any other houses on the block. Cars either enter from the side, or in two of the units, through the converted central court. In part because of the space needed for the central court, the number of dwelling units per acre caps at much less than the Box typology, from 12 to 44 du/acre. From the interior of the court, it is easy to tell units appart visually, as they are separated by a small strip of private garden. These buildings offer a several urbanist lessons:

- Massing is key to fitting in
- Creating a semi-public courtyard provides benefits for both the residents and the public realm.
- Separation of public and private space can occur through retaining walls, iron fences, or strategic landscaping.

COURTYARD | DETACHED

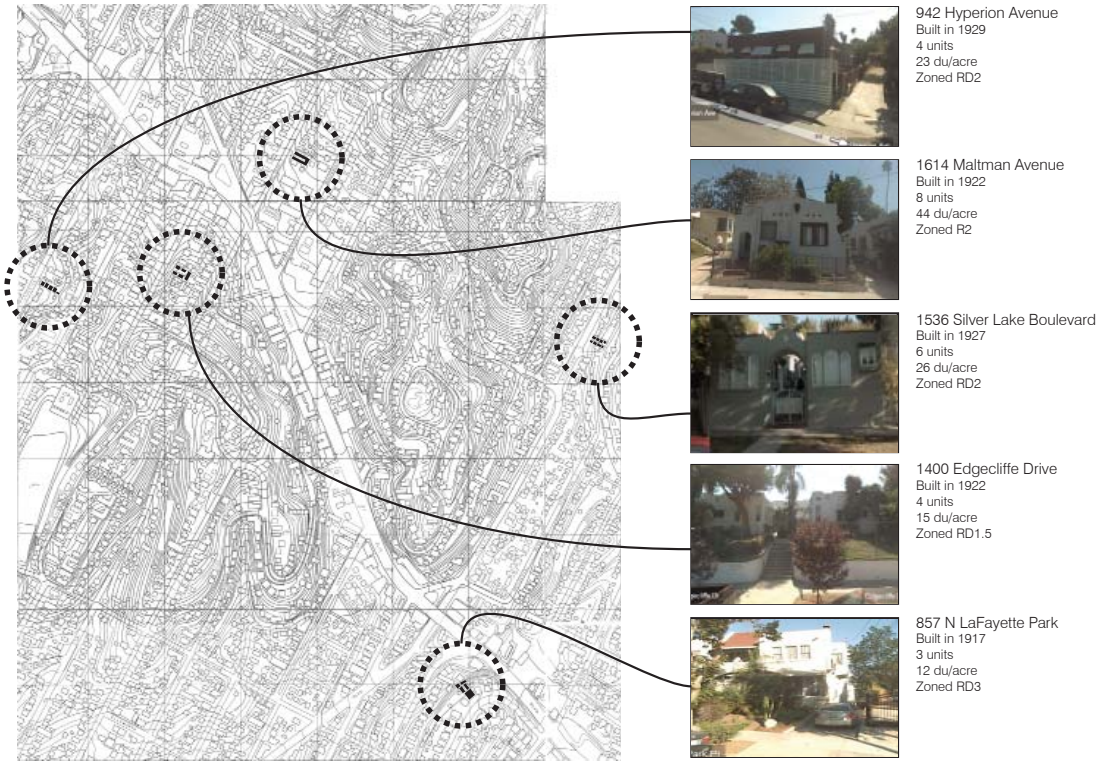
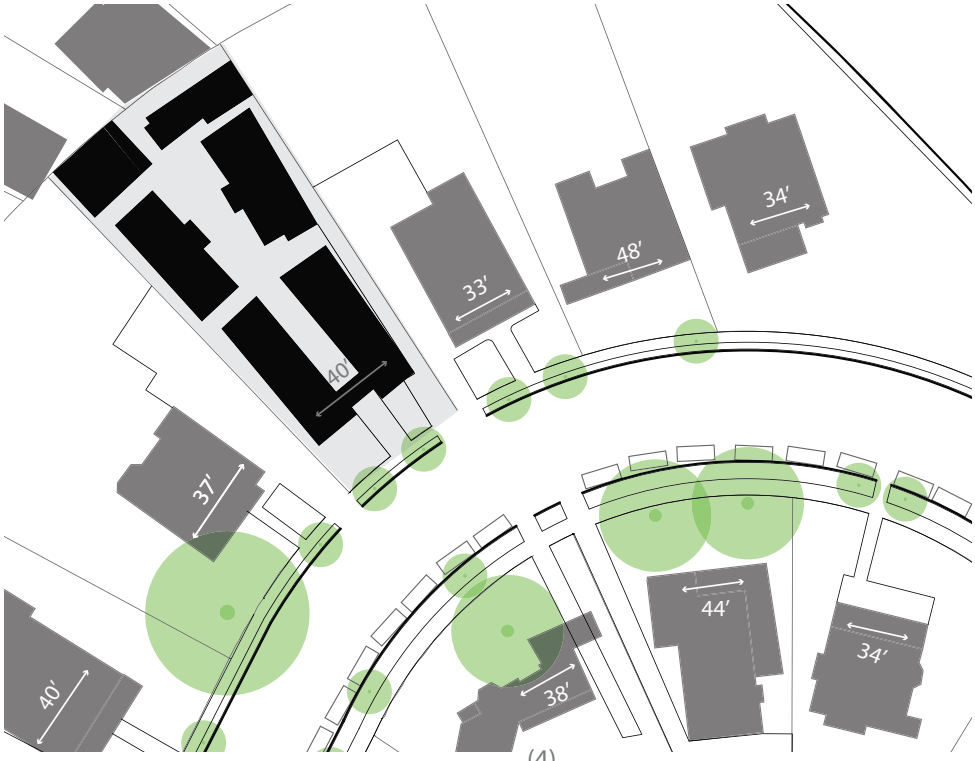


Figure 5-14. Building Typology Map: Courtyard, detached

857 N. La Fayette Park Place

36 dwelling units per acre



STREET

Street Width	40 feet
Sidewalk Width	8 and 12 feet
R.O.W	60 feet
Parking	Street, oneside
Traffic	Two-way

BUILDING

(1)	
# Units	4 units
Building Size	5,187 sq ft
(2)	
# Units	1 unit
Building Size	786 sq ft
(3)	
# Units	1 unit
Building Size	786 sq ft
(4)	
# Units	2 units
Building Size	2,022 sq ft
(5)	
# Units	1 unit
Building Size	1,008sq ft
Parcel size	0.250 acres
Lot Coverage	47.0 %
Dwellings / Acre	36 du/acre

NEIGHBORHOOD

Moderate Public Realm Landscaping
Moderate Private Realm Landscaping

Distance between neighbors	18 ft
Lot dimensions	160 x 50'

Figure 5-15. Plan Diagram for LaFayette Park Unit
*note, narrow vehicular drive on north edge of site

For the 857 North La Fayette Park Place address, the street that this lot is located on has a 60ft right of way, classifying it as a'primary neighborhood street'. Typical front setbacks are 20 ft, or half the width of the drive aisle. While the driving lanes go in both directions, parking is only allowed on one side of the street, reducing the overnight parking capacity of this block. The streetscape is articulated with an a full coverage of trees. This heavy amount of foilage increases the percieved grandeur of the block, and is reflected in high land values. Irregular block sizes also provide extra open space, largely due to extreme changes in topograph.

857 N La Fayette Park Place

Neighborhood Evolution

BLOCK

Front Yard Setback	20 ft
Side Yard Setback	5 ft
Alley	None
Available Parking	40 spaces

TAX INFO

Year Built	1917
2008 Taxes	$4,001
Land value	$76,417

Addresses:

857 1/2	857 N LA FAYETTE PARK PL 90026
859 1/2	859 N LA FAYETTE PARK PL 90026
859 1/4	861 N LA FAYETTE PARK PL 90026
859 3/4	861 1/4 N LA FAYETTE PARK PL 90026
661 3/4	861 1/2 N LA FAYETTE PARK PL 90026

1919

3.0 dwellings per acre

1950

8.4 dwellings per acre

2008

9.6 dwellings per acre

Figure 5-16. Neighborbood Evolution for the LaFayette Park Block
*note, 9.6 du/acre for 40 available parking spaces creates an on-street parking situation with 0.64 spaces per dwelling unit

A morphological study of the LaFayette Park Place block reveals an

approximate 220% increase in dwelling units per acre over a time period of ninety years. This dynamic growth has occured likely due to the block's proximity to Sunset Boulevard. Due to limited on-street parking, the goal of future zoning in this area might be to maintain the street's character. The LaFayette Park block study has revealed the following attributes:

- An early predominance of single family dwellings
- Single family uses are allowed to front major boulevards, with heavy landscaping.
- With minimal on-street parking availability and changes in topography, retail functions were never incorporated into this block.
- Lots on a curve with irregular shapes have an alley for service functions.
- Lower density dwelling types remain, but undergo conversions to accept multi-family uses.

Figure 5-17. Study of LaFayette Park block

In the LaFayette lot arrangement, the building's parking is on the street. In addition to the small scaled, private entrances, the detached courtyard typology entirely resembles its single family neighbors. These buildings are

treasured for their innate privacy, lush landscaping, and social court space. Often called ‘bungalow courts’ these structures are appreciated throughout California. Their positive contributions to a mixed density neighborhood adds a level of social interaction not seen in other typologies.

Building Type | Courtyard

Figure 5-18. Public Private Transition Sketches for LaFayette Park Unit
*note, all three elevations have similarly scaled entries.

5.7 BUILDING TYPOLOGY: AUXILIARY UNITS

The apartments I've selected to represent this particular typology were built between 1909 and 1938. This longer time span is reflected in the fact that 'granny flats' or 'carriage units' are possible add-ons with many styles, unit densities, and topological variations. They are defined as a pair of buildings, similar in scale that are arranged parallel to the street for multi-family use. Often the space between the units serves as parking. A lot arranged in this manner provides:

- Development options for buildings with large inital setbacks or longer lot depths.
- On-site parking to increase the density capacity of the block.
- The potential for a new type of live/work neighborhood space.
- Separation of public and private spaces can occur through retaining walls, iron fences, or topography.

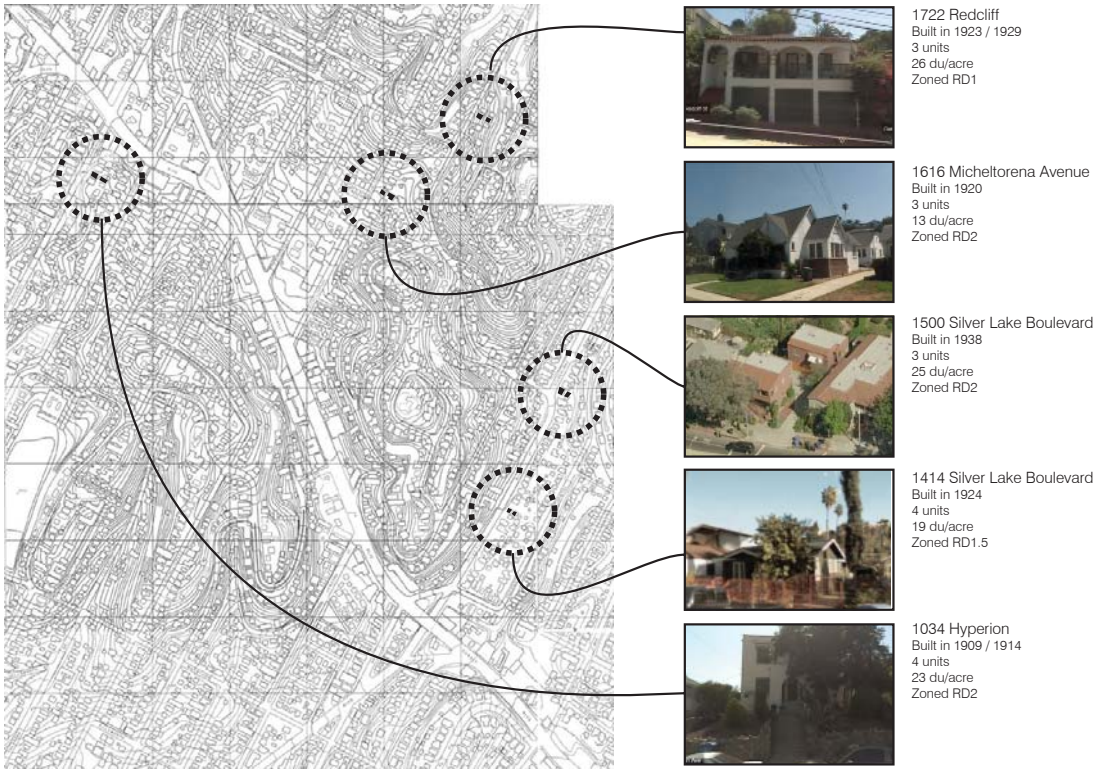


Figure 5-19. Building Typology Map: Auxiliary Units

1034 Hyperion Avenue

23 dwelling units per acre

STREET

Street Width	40 feet
Sidewalk Width	8 and 12 feet
R.O.W	60 feet
Parking	Street, both sides
Traffic	Two-way

BUILDING

(1)	
# Units	3 units
Building Size	2176 sq ft
(2)	
# Units	1 unit

Parcel size	0.169 acres
Lot Coverage	39.5 %
Dwellings / Acre	23 du/acre

NEIGHBORHOOD

Minimal Public Realm Landscaping
Minimal Private Realm Landscaping

Distance between neighbors	15 ft
Lot dimensions	147' x 50'

Appx. +/- 700 sf / du

Figure 5-20. Plan Diagram for Hyperion Unit
*note, vehicular drive on north edge of site with widened space inbetween for on-site parking.

For the 1034 Hyperion address, the street that this lot is located on has a 60ft right of way, classifying it as a primary neighborhood street. Each front setback is 20 ft, leaving a full 40ft of open space on the lot. The streetscape has only a

minimal amount of public realm landscaping. But maintains a very clear public/ private distinction through a grade change mitigating retaining wall.

1034 Hyperion Avenue
Neighborhood Evolution

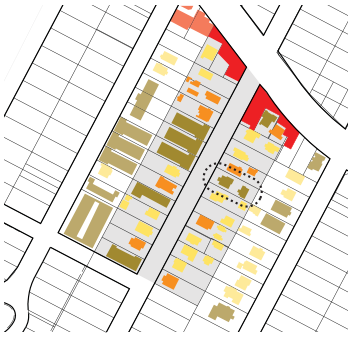
BLOCK

Front Yard Setback	40 feet
Side Yard Setback	8 and 12 feet
Alley	None
Available Parking	61 spaces

Addresses:
1034 N HYPERION AVE 90026
1034 1/2 N HYPERION AVE 90026
1036 N HYPERION AVE 90026
1036 1/2 N HYPERION AVE 90026

TAX INFO

Year Built	1909 / 1914
2008 Taxes	$6,844
Land value	$386,427



1919	1950	2008
5.6 dwellings per acre	19.2 dwellings per acre	18.3 dwellings per acre

Figure 5-21. Neighborbood Evolution for the Hyperion Block
*note, 18.3 du/acre for 61 available parking spaces creates an on-street parking situation with 0.58 spaces per dwelling unit

A morphological study of the Hyperion block reveals an approximate

85% increase in dwelling units per acre over a time period of ninety years. This increase was achieved primarily through the post-war addition of several massively scaled apartment buildings. However having the highest number of dwelling units per acre has also allowed this block, located at a major intersection, to have the most retail. The retail also includes shops which extend further than the local residents in service, including what may be termed as 'destination retailing services'. This road is designated in the Silver Lake community plan as a primary throughfare with high traffic flow. The Hyperion block study has revealed the following attributes:

- Early designation as a reciever of mixed uses creates an increase in housing supply
- Lack of open space near lots with a high percentage of coverage creates a deadened public realm.
- On hillsides, height is more of an issue.

Figure 5-22. Study of Hyperion Block

In the Hyperion lot arrangement, the building's parking is on the lot, between the building masses. This serves a dual purpose of increasing the potential block

density through on-street parking availability and hides the lot from pedestrian view. The building in front can be either single or multi story and have a wide range of pedestrian access types. Often called 'carriage homes' in the South, these structures are more rare in the Silver Lake community.

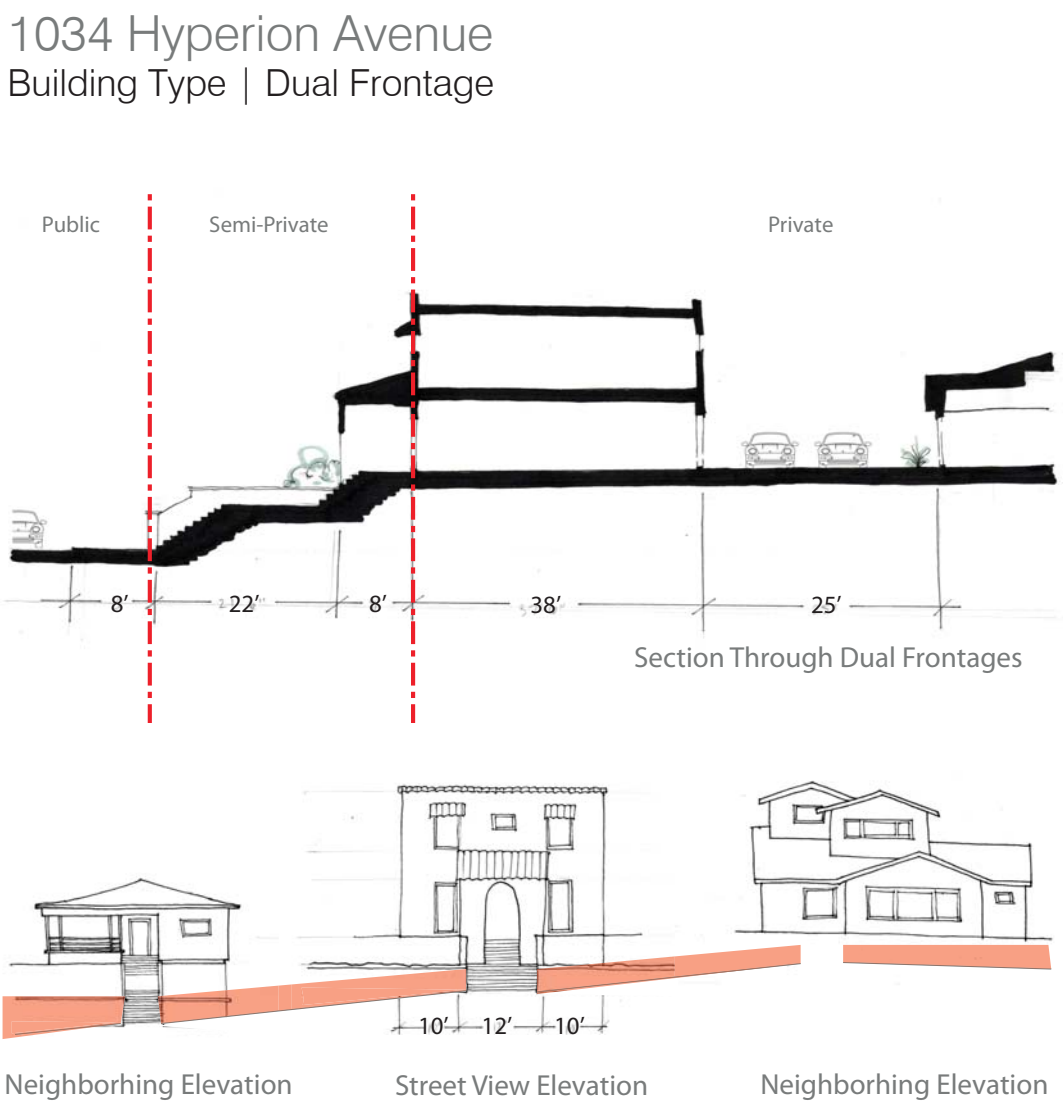


Figure 5-23. Section and Elevation Diagrams for Hyperion Unit
*note, use of retaining wall as public / private boundary

5.8 BUILDING TYPOLOGY: SIDE YARD HOUSING

The apartments I've selected to represent this particular typology were built during the early 1920's. This brief period of time likely represents the pre-

zoning era when single family homes were increasing in popularity in urban environments yet the real estate boom of the later 20's had not yet arrived in full force. These are typically laid out as three units, perpendicular to the street, for single family use. Ranging between 20 and 57 dwelling units per acre, this typology has the highest minimum density, making this building layout an excellent densifier while keeping in single unit proportions. A lot arranged in this manner provides:

- Relatively affordable, single units.
- An extension of the public realm through an enlarged side yard, typically heavily landscaped.
- High enough densities to support neighborhood retail and transit.

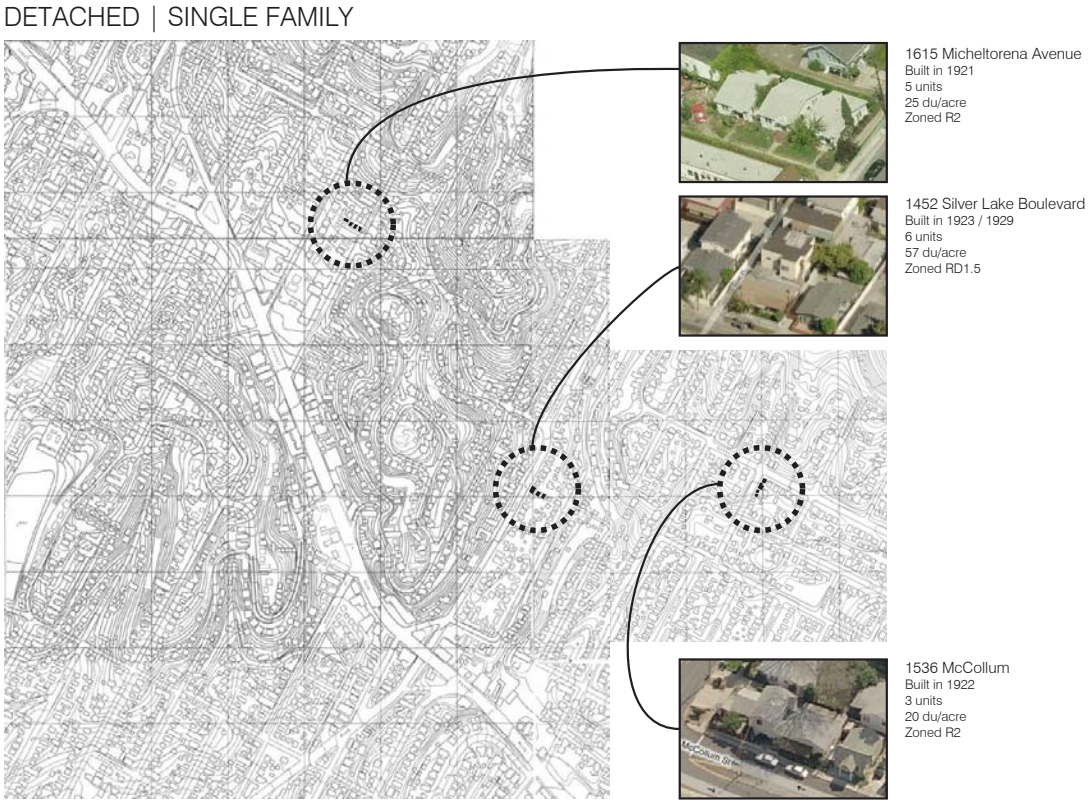


Figure 5-24. Building Typology Map: Side Yard Housing

1615 Micheltorena Street

29 dwelling units per acre

STREET

Street Width	40 feet
Sidewalk Width	8 and 12 feet
R.O.W	60 feet
Parking	Street, both sides
Traffic	Two-way

BUILDING

(1)	
# Units	1 units
Building Size	630 sq ft
(2)	
# Units	1 unit
Building Size	630 sq ft
(3)	
# Units	1 unit
Building Size	630 sq ft
(4)	
# Units	1 unit
Building Size	630 sq ft
(5)	
# Units	1 unit
Building Size	820 sq ft
Parcel size	0.170 acres
Lot Coverage	45.0 %
Dwellings / Acre	29 du/acre

NEIGHBORHOOD

Minimal Public Realm Landscaping
Moderate Private Realm Landscaping

Distance between neighbors	9 ft
Lot dimensions	143' x 50'

Figure 5-25. Plan Diagram for MIcheltorena Units
*note, vehicular drive on south edge of site with some space at end for on-site parking.

For the 1615 Micheltorena address, the street that this lot is located on has a 60ft right of way, classifying it as a'primary neighborhood street'. Each front

setback is 20 ft, leaving a full 40ft of open space on the lot. The sidewalks are larger than normal here, due perhaps to their later development date. The streetscape has only a minimal amount of public realm landscaping. Like the neighboring Golden Gate block, a green strip of semi-private space expands the feel of the streetscape.

Neighborhood Evolution

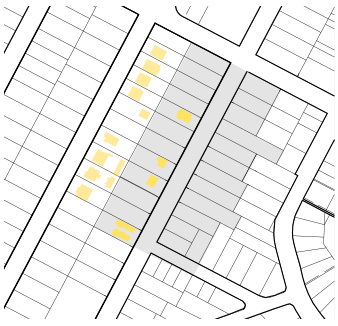
BLOCK

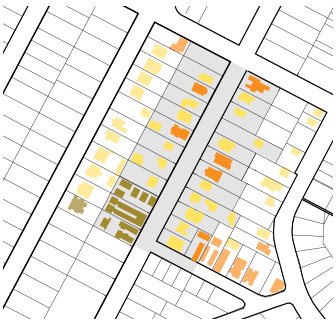
Front Yard Setback	None
Side Yard Setback	10 feet
Alley	None
Available Parking	59 spaces

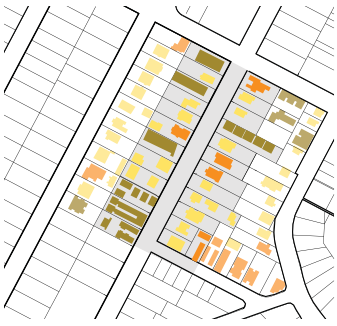
Addresses:
1613 N MICHELTORENA ST 90026
1615 N MICHELTORENA ST 90026
1617 N MICHELTORENA ST 90026
1617 1/2 N MICHELTORENA ST 90026
1617 3/4 N MICHELTORENA ST 90026

TAX INFO

Year Built	1921 / 1931
2008 Taxes	$7,230
Land value	$156,980







1919
0.9 dwellings per acre

1950
9.5 dwellings per acre

2008
10.7 dwellings per acre

Figure 5-26. Evolution diagrams for Micheltorena block
*note, 10.7 du/acre for 59 available parking spaces creates an on-street parking situation with 1.06 spaces per dwelling unit

A morphological study of the Micheltorena block reveals an approximate 1080% increase in dwelling units per acre over a time period of ninety years. This is largely due to the block's mainly mid-century growth in comparison with the rest of he neighborhood. A quick analysis of the last fifty years reveals only a 12% increase in density. This increase was achieved pirmarily through the post-war addition of box-style apartment buildings. However, this has also allowed for a large increase in neighborhood retailing functions and a likely increase in housing attainability. This road is designated in the Silver Lake community plan as a primary throughfare with high traffic flow. The Micheltorena block study has revealed the following attributes:

- A number of smaller lots were assembled with building lots adjoining their back boundaries into larger and deeper lots.
- Only one side of the street maintians a build to line.
- Primarly post-zoning growth led to lower than neighborhood average density, in comparison with its surrounding blocks.
- Lack of clear public / private boundaries leads to vehicle parking in 'front' yards.
- Blocks further from major intersections grow slower.

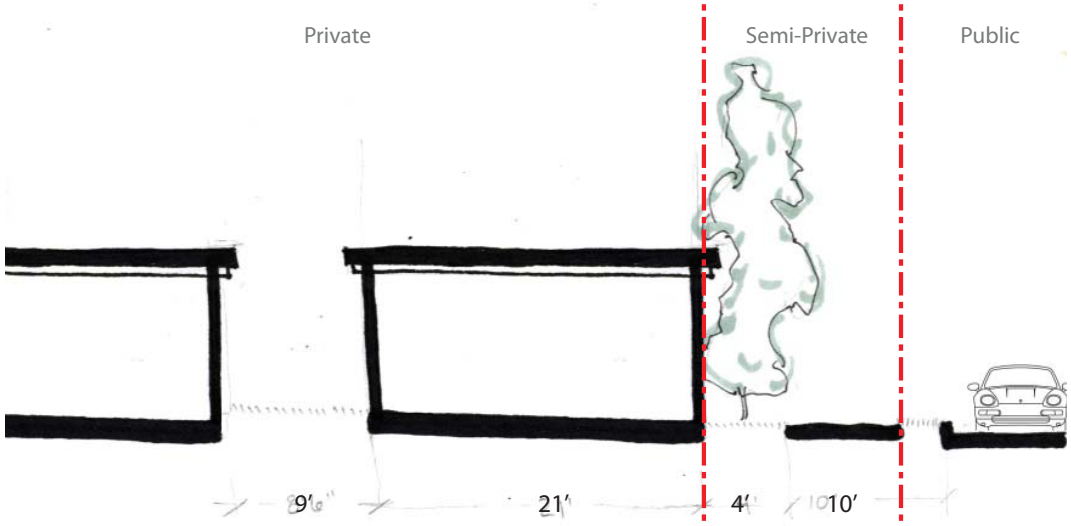
Figure 5-27. Study of Micheltorena Block

Figure 5-28. Micheltorena Street, view downtown.

In the Micheltorena situation, cars are parked either on the street or on the lot. The increased depth of the side yard at the expense of the front yard creates a strange set of street-front relationships. However, a little landscaping can go a long way in mitigating these pressures. Especially in a slow-growth scenario, this type of incremental lot development gives the owner a time based advantage.

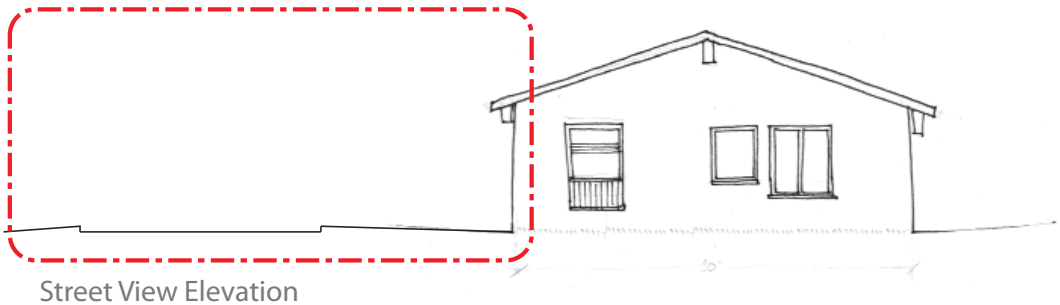
1615 Micheltorena Street

Building Type | Detached



Section Through Detached Units

Lot Interior Elevations



Street View Elevation

Figure 5-29. Section and Elevation Diagrams for Micheltorena Units
*note, the wide open space visible from the street, this 'alley' could be 'greened' for a heavily landscaped, extended public view.

This chapter has located both the micro and marco elements in defining the way a block evolves. Micro elements include building types, the thoroughfare width and quality of public realm. The macro elements include proximity to neighborhood retail and time based block evolution, what developed when and under which zoning regulations. As shown, most lots in the Silver Lake community can accommodate higher intensities of use and many of them evolved to do so over time. Particularly those that were located prominently in a neighborhood center or along a corridor.

CHAPTER 6: WHAT NEIGHBORHOODS COULD BE AND WHY THEY'RE NOT

6.1 NEIGHBORHOOD AVERSION TO DENSITY

Urban neighborhoods should be dense (environmental sustainability), to increase quality of life through neighborhood retail (economic sustainability) and street vitality (social sustainability). Los Angeles in particular, has always been an urban place with plenty of multi-family housing. In the oldest parts of the city, seemingly ancient apartment buildings sit alongside equally aged private homes and commercial structures[1]. Particularly in Silver Lake, along Sunset Boulevard, these urban projects are right at home. And between the years of 1982 and 1997, the city actually grew denser[2]. However, the word 'density' evokes an emotion response from many residents.

Many of those seeking to control density believe that by keeping 'the numbers' as low as possible, the development area can minimize impacts like traffic congestion and demands for services. And while this might initially seem to make sense, in reality, single family detached houses generate the most car trips per household of any type and low density sprawl has proven to be the most expensive pattern for delivery of municipal services. Principally in regards to those the city most wishes to protect, children and the elderly[3]. Using conventional calculation methods, density at one to six units per acre is optimal for the car. Most of our development in the United States is built out

1 Gish, Todd. Los Angeles Has Always Been Dense. Los Angeles Times. September 16, 2007.

2 Campoli, Julie and MacLean, Alex. Visualizing Density. Lincoln Land Institute. 2008.

3 Dover, Victor. Alternative Methods of Land Development Regulation. Report Prepared for the Town fo Fort Myers Beach, Florida. September 2, 1996.

at this level. Densities at slightly higher levels are often too high for a car-only approach, but are not yet high enough to support alternative densities, creating a transportation limbo[4].

Neighborhoods often aren't dense due to local involvement in the political planning process in a way that conventional zoning did not anticipate. Since the 1960s, Los Angeles area homeowners associations in general have been largely concerned with the establishment of racially and economically homogeneous residential enclaves. The idea was to 'protect' the suburbs from unwanted development, including apartment buildings and offices. This is an outdated ideology that is still reflected in zoning codes. As long as the scale of the uses are compatible, a mixture of uses should be encouraged or even required due to the secondary public benefits of fewer vehicle trips, resident's convenience, and complementary peak usage times[5].

By the 1970s, the eventually to be termed 'slow-growth' protests achieved their first of many victories with limits placed on housing expansion and residential densification through zoning. Both of these events lead to an explosion in property tax values, leading to increased motivation for political involvement by home owners associations. A decade or two later, the slow-growth movement dominated local election politics in a manner previously unheard of. Results at the polls were dramatic, and "increasingly leads to a complex war, involving the courts, the state legislature, and various regulatory bodies". Neighborhoods have developed in a way that is more and more spread out due to this local involvement in the political planning process in a way that conventional zoning did not anticipate[6].

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4 Ibid.

5 Inniss, Lolita Buckner. The Facade of New Urbanism and the Form Based Code. Cleveland-Marshall School of Law, Cleveland State University, Cleveland, Ohio. October 18, 2008.

6 Davis, Mike. City of Quartz: Excavating the Future of Los Angeles. Homegrown Revolution. Vintage Press, 1992.

Unfortunately, growth issues are commonly perceived by homeowners as a zero-sum game in which zoning codes are used as a barbed wire fencing around home values. In their efforts to control the land uses around their property, homeowners have become potent agents of metropolitan fragmentation[7]. This is counter productive, as neighborhoods that are socially, economically, and environmentally sustainable are likely to be attractive to newcomers. Economically healthy cities should expect their neighborhoods to change over time, leading to greater development density, intensity, height, and land use variety[8]. This is particularly true if the intown neighborhoods wish to experience many of the benefits of urban life, including neighborhood retail. The way conventional zoning codes are written currently contribute to a decrease in quality of social interaction, quality of life, and the natural environment[9].

6.2 AMENITIES OF DENSITY

The next wave of city building could involve redensification[10]. This means putting new housing on properties currently in use. It means allowing higher densities into singularly zoned blocks. It necessitates specialized zoning scenarios and creative thinking on both the part of the developer and the planner. And it requires extreme political dexterity. The question is, where does this growth go?

Single family neighborhoods are a point of intersection between the necessary architectural interventions, public planning policies and neighborhood associations in the density debate. In order to alleviate the concerns residents of lower density neighborhoods might have over increased density, the amenities

7 Ibid.

8 Elliott, Donald. A Better Way to Zone: Ten Principles to Create More Livable Cities. Island Press, 2008.

9 Sperber, Bob. Function Follows Form. Professional Buildier, September 2005.

10 Cuff, Dana and Sherman, Roger. Proposition X: Inventing the Next LA. Book Proposal. cityLAB at Univeristy of California Los Angeles. February, 2007.

of urban life should be showcased.

The concept of convenience is key to encouraging people to live in smaller dwelling units in denser urban environments. The convenience factor might include proximity to jobs, culture and nightlife and reliable public transit. The emerging most influential neighborhood planning tool, the U.S. Green Building Council's LEED for Neighborhoods, notes that a minimum of seven dwelling units per acre is required to support one bus every 30 minutes. Significantly. increasing ridership requires transit frequency of around ten to 15 minutes, which in turn requires urban densities of 20 to 40 units per acre on average within a few blocks on either side of any key transit line. Highly convenient rapid transit requires even more units per acre to be viable.

Public amenities such as quality parks and active community centers and privates ones like corner markets and coffee shops are only economically viable with denser development. They also foster a public realm that is able to generate high-quality activities to encourage interaction between neighborhood residents. Other typical amenities include child care, libraries, aquatic centers, bike paths, police sub-stations, and public gardens. While density alone does not guarantee urban amenities, it allows areas to be more attractive to that type of development. Having more people in a neighborhood means it's easier to provide more amenities.

Historic districts often feature the very design characteristics that conventional zoning typically outlaws[11]. These include a mix of land uses, building types, and housing prices; higher densities; and narrow streets with trees close to the road to allow for pedestrian comfort and vehicular slow down. Houses typically feature shallow setbacks and low parking ratios.

11 Dover, Victor. op. cit. note 3.

6.3 MEASURES OF DENSITY, CALCULATED AND PERCEIVED.

Density measures are commonly used as planning forecasters, frequently employed to describe what an implemented plan might look like. However, these numbers do not give the entire picture. An acre is roughly an American football field, without the end zones. It is 43,560 square feet and a square, and approximately 208' on each side. Essentially, in planning terms, 1 acre is you and your neighbors, 10 acres is a couple of blocks and 100 acres over flat terrain is a 5 minute walk.

A house and its neighbors:

appx. 1 acre = 43,560 sq. ft.

5 street facing lots

1 Acre

A house and its street:

appx. 10 acres = 435,600 sq. ft.

42 street facing lots

10 Acres

A house and its neighborhood:

appx. 100 acres = 4,356,000 sq. ft.

appx. 500 street facing lots

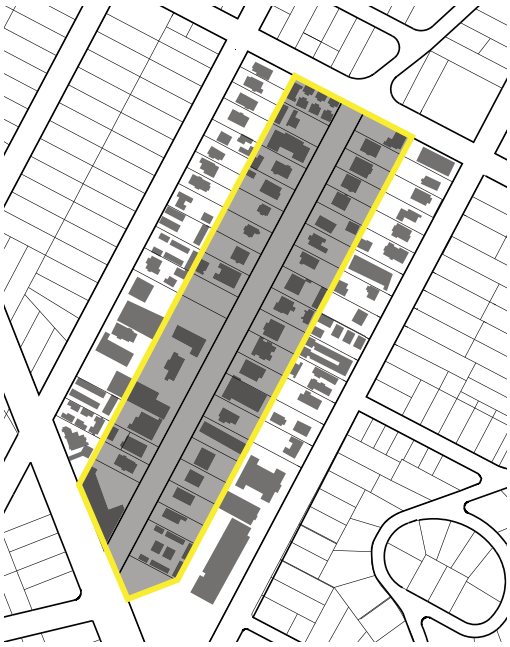
100 Acres

Figure 6-1. Density Measures and Walking Radii in Silver Lake

Gross density is the number of dwelling units for each acre of land, including

areas devoted to streets, parks, sidewalks, and other public rights of ways. It is used to compare the relative land use efficiency of large swaths of urban areas. The Golden Gate block is roughly 9 'dua', dwelling units an acre in Gross Density.

Net Density is the number of dwelling units per acre of land. This calculation excludes streets, parks, sidewalks and other public facilities. This is used to measure the rate of utilization of land set aside for residential use. The Golden Gate block is roughly 14 dua in Net Density.



GROSS Density
All land uses and rights of way are included.

@ 85 units = 9.1 dua

NET Density
Only residential land uses and public rights of way are excluded.

@ 85 units = 13.9 dua

Figure 6-2. The Golden Gate block of Silver Lake analyzed.

Density can also be calculated to show a measure of crowding. Overall, Silver Lake is stated to be around 10,610 persons per square mile[12]. This translates to around 17 people per acre in the neighborhood. On the Golden Gate block, this translates to 1.8 persons per dwelling unit if calculated by gross density or 1.2

12 Echo Park Silver Lake Elysian Valley Community Plan. City of Los Angeles, Department of Planning. August 11, 2004.

persons per dwelling unit if calculated by net density.

Increased density supports local goods and services (as opposed to regional shopping, like Westfield) and local parks (as opposed to regional ones, like Griffith Park). In 1975, Kevin Lynch calculated that a 6,000 square foot neighborhood convince center would need to be supported by 800 households in a quarter mile, or 8 du/acre. Corroboratively, this number to support neighborhood commercial is also claimed by Smart Growth proponents to be somewhere around 8-12 dwellings per net acre.

Table 6-3. Density allowed by existing Los Angeles area land regulations.

ZONE	REGULATION
R-1	with minimum lot area of 5,000sf per dwelling unit has a maximum density of 8.7 dua.
R-2	with minimum lot area of 2,500sf per dwelling unit has a maximum density of 17.5 dua.
R-3	with minimum lot area of 800sf per dwelling unit has a maximum density of 55 dua. However, with a minimum lot size of 4,000 sf for two dwelling units, the most likely density is nearer to 22 dua.
Guest rooms	with a minimum lot area per room of 500sf have the highest maximum possible density at 87 dua.

Each of these codes specifics a singular density, however, from the Golden Gate density study it is apparent that a block can be a mix of several different densities and household types. Zoning should be flexible so as to encourage this type of mixing, perhaps with provisions such as determining density based on the size, bulk and placement of the surrounding structures, treating corner lots denser than mid-block lots, or basing dwelling unit density on the availability of on-street parking. These potential measures will be discussed more in depth in Chapter 8.

As communities become more and more empowered in local government, zoning will continue to be heavily influenced by local politics. Under a

conventional zoning system, that is reactive and focuses on what can not be built, variances will grow increasingly detailed, rigid and inflexible over time. This is likely because the politics of neighborhoods leans toward predictability which leads to ever-finer use distinctions and design controls. A refined future zoning system should funnel those political pressures towards sustainable decision making processes, long term plans and standards. It will need to accommodate flexibility better than our current zoning tools[13].

6.4 SUSTAINABLE NEIGHBORHOODS

Sustainability is often defined as having three equally weighted components; our natural environment, which supports human life and society, who creates business economies for it's prosperity. It is important that they go in this order, as society and their economies are fundamentally reliant on the environment.

ENVIRONMENT

The slow-growth movement as outlined above has been overwhelmingly a movement of homeowners, not environmentalists. If environmental concerns came into discussion at all, it was because the residents regarded their front yards as important as Yosemite Park[14]. Therefore, zoning regulations largely evolved to protect the interests of homeowners, rather than the interests of conservationists. Zoning should be re ordered to focus on long range issues like environmental sustainability by removing the restrictions that limit creativity in land use efficiency.

Green infrastructure strategies should be created to address the supply and management of energy, storm water, materials and wastes. Denser

13 Elliot, Donald. op. cit. note 8.
14 Davis, Mike. op. cit. note 6.

development works to provide the critical mass necessary for making these innovative systems financially viable. Parks, community gardens, and other open areas compete for space in a high-density neighborhood. The land these uses occupy requires significant civic investment unless a developer has provided them as a condition of development. However, through the use of features such as green roofs, interior courtyards, and communal streetscapes, well-designed density can provide strategic opportunities for outdoor space[15].

As local codes are adjusted to reflect higher efficiency in land use policy, the next frontier to tackle is regional planning. By extending the tools used to regulate urban form in small areas, regional development patterns can also be coded. Particularly useful at this scale would be flexible zoning principles to deal with road networks and regional watershed management. Actually, this is a rather large gap in the regulatory framework in general, as most are geared toward smaller scale instances of lots, blocks and districts. We simply can not go on believing that the same tools that regulate incremental development decisions are sufficient to shape regional growth patterns[16].

SOCIETY

The most powerful 'social movement' in contemporary Southern California is that of affluent homeowners. They organize themselves with community designations that may or may not be more reflective of current home values than historic community boundaries.[17] This is a direct result of the fact that the family home is the largest single investment typically made by an American family and housing appreciation is the most common way in which Americans

15 Toderian, Brent. Vancouver's Eco Density Initiative. Urban Land Green. Spring 2008.

16 Spikowski, Bill and Madden, Mary. Place Making with Form Based Codes. landWrites. Urban Land Magazine. September 2006.

17 Davis, Mike. op. cit. note 14.

generate wealth. To ensure they don't lose value, many neighborhoods created restrictive covenants ensuring that no one makes, adds, alters or even paints his house in a way that will diminish his neighbor's house.

Some homeowners believe that any additional development in the area will hurt their home values or make their lives more complex. They believe that having more expensive homes nearby will increase the overall value of the neighborhood and larger lots mean fewer cars and fewer children in local schools. Not-In-My-Backyard or NIMBYism is a significant force resisting the market demand for more attainable housing in the US. NIMBYism is fundamentally anti-change and puts city council in a position where it must agree with an anti-change position or risk alienating voters. Not only should mature cities expect change to be the norm, but in economically healthy cities that change will commonly be toward greater development density, intensity, height or variety of use, at least in some areas. Growth means that people are moving in.

Chapter 2 went into great depth about how traditional zoning codes were designed to reflect this sense of protectionism by "well founded" communities that defined themselves by the exclusion of others. Zoning has never resembled a social justice tool and by maintaining the status quo, zoning will only continue to serve as a barrier to social change rather than a resource handy for encouraging it[18].

Some might argue that it extends zoning beyond its legal limits to use it as a regulator of human social arrangements. Zoning started as a way to mediate the co-existance of individual property rights and broader community values. But since then, some communities have used the tool to separate the

18 David Harvey, The Spaces of Utopia, in Between law and Culture: Relocating Legal Studies. 105. David Theo Goldberg, 2001. And in Façade of New Urbanism.

'haves' from the 'have nots', into racially and economically homogeneous neighborhoods[19]. Therefore, contemporary zoning needs to make a stab at addressing this rift. In 1990, about 20% of the national median house cost was attributable to land costs[20]. Thus, the cost of land goes a long way in making housing affordable and attainable to a mix of incomes. Residents of any given neighborhood don't really have an interest in overall housing affordability in the city. Efforts to allow smaller lots and higher residential densities will always require the leadership of elected officials or organizations with city wide perspective.

The exercise of assigning zoning to land was originally envisioned as a technical process, perhaps subject to some pressure from business interests. But the strength of NIMBY pressures goes far beyond these original expectations. They did not anticipate that pressure from neighborhoods would result in political review of projects that met substantive zoning requirements. Zoning will continue to be heavily influence by local politics, but the system should be designed to direct those political pressures towards long-term plans and objective zoning standards[21].

ECONOMICS

The last leg of the sustainability tripod is economics. Again, trends in zoning point to form based codes that advocate for norms which 're-create' an imagined city of the past. What is left out of this pristine imagery is that the city of the past was essentially a spontaneous and self-generated form of social organization driven largely by economic concerns.[22] Real estate markets are dynamic. As one property is redeveloped, the possible viable uses of nearby properties can change, and sometimes dramatically. A range of commercial

19 Elliot, Donald. op. cit. note 13.
20 American Home Builder's Association
21 Elliott, Donald. op. cit. note 19.
22 Innis, Lolita Buckner. op. cit. note 5.

(office and retail) facilities should be offered to maximize working and shopping opportunities.

Currently impacting this 'spontaneous' growth of the past are the modern day parking requirements through municipalities or lenders. The first general zoning ordinance in the City of Los Angeles, adopted in 1921, did not include specific offstreet parking requirements. An ordinance adopted in 1930 required each apartment of 20+ units to provide one parking stall per unit. By 1946 this was amended to include one space for every single family home. In 1963, the apartment clause changed to one space per dwelling unit in buildings of 6+units. And in 1977, both clauses changed with two spaces per single family dwelling and 1.5 spaces for an apartment with over 3 rooms[23].

Despite the impression given from these black and white ratios, parking demand is hard to quantify. It usually relates to price. When price is low, demand is high. When price is high, demand lowers. Currently, residents do not have the option of unbundling the cost of parking from their purchase or rent and so they do not understand the true cost of driving. Removing the cost of parking from housing can make housing more affordable for those who do not drive. Each parking space associated with a residential unit typically increases the cost of that unit by up to 20 percent and decreases the number of units that can be built on a typical lot by up to 20 percent. Each vehicle that a household can eliminate can qualify it for an additional $60,000 in mortgage[24].

Modifying parking requirements to base it off of square footage, rather than per unit would encourage development to mix unit sizes to better match the market and create a higher per person density. This also allows the financial impacts of parking requirements to be the same across unit types (studio, two

23 Wilbur Smith and Associates. A Study of Residential Parking Requirements. Los Angeles: Wilbur Smith and Associates. 1963.

24 Klipp, Luke H. The Real Cost of San Francisco's Off Street Residential Parking Requirements. Livable City. University of California at Berkeley. May 2004.

bedroom, etc). Another option is community parking spaces, which would eliminate on-site parking[25]. Economically, reducing the burden on developers to provide parking will result in higher density residential developments and promote higher transit usage. Unbundling parking also provides more flexibility and choice to residents than previously given.

Table 6-4. Transit Density Table[26]

TRANSIT SERVICE	RESIDENTIAL DENSITY THRESHOLD
Bus (1 every 30 minutes)	7 units / acre
Bus (1 every 10 minutes)	15 units / acre
Rapid transit (1 every 5 minutes)	20 units / acre
Commuter Rail	30 units / acre

In order to truly re-create the city of the past, spontaneous neighborhood growth generators, like jobs and commercial centers, need to be in place, preferably within walking distance. Just making buildings look attractive and historic isn't sustainable. A sustainable community should offer many ecologically responsible opportunities for investment, businesses, and employment that will, in turn, support an economically diverse and prosperous community. Well-designed density is vital to a strong economic foundation in any neighborhood as it brings a critical mass of local employees and customers to support a variety of community needs[27].

6.5 NEIGHBORHOODS SHOULD HAVE A FLEXIBLE FRAMEWORK

We don't yet have all the pieces to the puzzle for sustainability. What we

25 Lee, Bernard. Housing the City: Impact of Parking Requirements on Housing Density. University of California, Los Angeles. 2005.

26 *Ewing, Reid.* Pedestrian and *Transit*-Friendly Design. March *1996*.

27 Toderian, Brent. Vancouver's Eco Density Initiative. Urban Land Green. Spring 2008.

do know is that people tend to panic if they think their neighborhood is going to undergo change. This is mostly fear of the unknown. So if changes were set about in a predictable fashion, that was geared towards a long term understanding of the tenants of sustainability, neighborhoods might be spared this initial state of panic. "Rather than imposing external plans, we opt for emergent solutions . . . built upon existing urban genetic."[28] People shouldn't get uptight about density on a lot by lot basis. This thesis focuses particularly on lots and their surrounding block, as determined by street facing lots.

This need is for permanence and predictable solutions, given that real estate markets are dynamic. As one property is redeveloped, the possible viable uses of nearby properties can change, sometimes dramatically. Particularly in mixed use environments, one move triggers another and another after that, building patterns of disorder.

Since free market forces function as generators of development, it is essential that they have certain flexibility, and a certain amount of freedom to act upon the changing market tides. It is also essential, however, that this freedom is limited by a regulatory structure. In traditional Euclidian zoning, all 'interaction' between desired development and the zoning code is merely the developer following, or requesting variances from, a set of rigid standards. The code, which was potentially written any number of decades previous, has already premeditated the size, use, and building placement of a particular lot. In a neighborhood with a flexible zoning system, the code is less static and more respondent to the complex behaviors of elastic market forces.

The involvement of so many variable agents generally shifts a regulatory system's dependency towards non-linearity[29]. In zoning, this means that rather

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28 Thurlow Small Architecture, Muchi East: Plan-less-ness: The Bay City Project. Praxis. Issue 10. October 2008.

29 Spuybroek, Lars. The Architecture of Continuity: Essays and Conversations. V2_Publishing, Rotterdam. 2008.

than a pre-exisitng code determining what a builder will develop, what a builder develops can alter the code for other nearby lots. Mature zoning is 'found' in the context of the neighborhood, not a given. This gradual alteration of codes dependent upon what's already been built is no different from the early days of zoning when large swaths of land were zoned dependent upon what types of uses had already been developed. Only it takes a more fine grained, lot by lot approach.

Although this approach will not lead to an instantly visualizable result, it can be argued that neither do conventional zoning techniques. Many cities receive 600-1,000 requests for variances a year. And each time a greenfield development standard is adopted for general use throughout the city, the number of nonconformities tends to increase.[30] With flexible zoning, instances of variance requests will decrease as the possibilities for each lot will be more open to interpretation. Although the order is vague, it should none the less be considered very precise, because no development in particular has been ruled out. It has only been allowed to change based on the current neighborhood context. There will not be any abstract use-regulations for development, there will only be variations upon the existing environment[31].

Current trends in zoning point to form based codes as the wave of the future. Their inherent flaws will be discussed in the next chapter, however they are functionally more efficient than conventional zoning. In flexible zoning, scale acts as a limiting agent. It is the essential factor that sets the regulatory machine in motion. The effervescent 'neighborhood character' emerges from the interaction of contextual scale, market forces, and community values.

With flexible zoning, neighborhood development does not merely follow the

30 Elliot, Donald. op. cit. note 21.
31 Spuybroek, Lars. op. cit. note 29.

code, it changes it for future development. Conventional zoning regulations are merely frozen moments in time, inherently moments in the past. Focusing on standard numeric measures, they do not reflect the passage of time or encourage new development to do so either. Each lot is treated as an individual case study where the developer requests an individual variance that will affect only their property. Flexible zoning is collective in that new developments affect the entire regulatory system. That being said, unlike conventional zoning that typically focuses on greenfield regulation, flexible zoning focuses on older areas of the city. There should be enough previously built to record a standard, and enough plasticity in the code to enable change[32].

A flexible zoning system requires two things, a created system that is internally structured (otherwise it can not process information) and external flows of information, or growth. As a system with inherent variation, the code can simultaneously restrict development on one lot, encourage it on another, resist gentrification on a particular block or completely redevelop another. This creates a multiple, negotiable, and predictable system where all developments are a part of the process of neighborhood evolution. A pattern of emergence is created, with each change contributing to the overall whole. The market forces and underlying economics of a neighborhood are no less real and no less critical to its success than the load forces on a particular building.

Although the most questionable legally, dynamic development standards will result in the increased ability of city council to meet the planning goals of the city as laid out in the comprehensive plan. "[They] will have to define specifically how they will change over time, for instance, based on traffic capacities, public parking usage or pollutant levels, and will need to ensure that the factors driving

32 Ibid.

those changes cannot be manipulated. "[33]

In summary, sustainable cities are complex, and there are many factors to consider. Density is one of the most powerful tools any municipality has to achieve sustainability in all its dimensions. The 21st century will be the century of densification, and cities that get it right will not only perform well on sustainability objectives, but also be competitive, resilient, and great places to live[34]. As far as our regulatory procedures, we need to think in terms of zoning standards that change automatically, in predictable ways, so homeowners will have a comprehensive understanding of how their property can be developed as real estate markets evolve. Future zoning codes should be more flexible than our current zoning tools[35].

33 Elliot, Donald. op. cit. note 30
34 Toderian, Brent. op. cit. note 15.
35 Elliot, Donald. op. cit. note 33.

CHAPTER 7: A CRITIQUE OF FORM BASED CODES

As mentioned in previous chapters, conventional zoning has had to adjust many times to keep up with changing market forces and increasing public demands for resident's control over neighboring land uses. This is because of the code's reactive nature and how it is typically first applied in a one-size fits all manner, assuming that it will be further refined. This results in a code that increases in length as planners continue to determine what can not be built based on 'accidents' that did get built. The resulting development may be compatible in terms of density, but not in terms of physical context of surrounding neighborhood[1].

According to Donald Elliot's analysis, many ineffective ordinances are broken in very similar ways. They actually prevent many types of development that cities would like to approve, they don't provide housing at prices that citizens can afford, they adjust poorly to changing circumstances and therefore encourage poor systems of city governance[2].

7.1 WHAT IS A FORM BASED CODE?

In response to this, form based codes are increasingly popular ways to regulate land development in municipalities that have experienced some of the negative effects of conventional codes. Heavily promoted by the New Urbanists, visually defined form based codes seem to some as the obvious answer to the frequently incomprehensible jumble of conventional written

1 Form Based Codes Handbook. Sacramento Area Council of Governments. Released August 21, 2008.

2 Elliott, Donald. A Better Way to Zone: Ten Principles to Create More Livable Cities. Island Press, 2008.

codes. Technically, a form based code only "places primary emphasis on the physical form of the built environment,"[3] by designating, "the ultimate form of the development in a position superior to its use".[4] Therefore, a form based code could take on any number of formats to achieve this goal. But since their recommended forms are described in sketches, as well as text, the codes themselves are viewed as easier to understand and implement.

Form based codes argue that there is no inherent reason why most commercial, institutional, and residential uses need to be separated, as long as the scale of the uses is compatible. Some may want them to be separated and others may want them together, but there is no reason why the government has to separate them. At a minimum, mixing should be allowed in some places, perhaps even be required in others, because of secondary public benefits (less traffic, etc)[5].

While most form based codes tout place-specificity as one of their goals, they are most entirely composed of the same set of parts. Not every code will follow this outline, but most include some type of regulation in all five of these sections[6]:

- The Regulating Plan; a 'key map' showing the sites for various building typologies, street types and build-to lines.
- Urban Regulations; commonly presented in a matrix with supporting diagrams covering bulk, height, coverage and use standards typically organized by building typology.
- Street Regulations; graphically present widths, sidewalks, curb heights, parking requirements, turning radii and other street standards.

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3 City of Farmers Branch, Codes Project: Frequently Asked Questions, http://ww.farmersbranch.info/Planning /codes7FAQs.html

4 Robert Sitkowski and Brian Ohm, "Form-Based Land Development Regulations,".

5 Elliott, Donald. op. cit. note 2.

6 This list of elements was derived from Peter Katz, Form First. November 2004, p17. ; Jeremy E. Sharp, An Examination of the Form-Based Code and Its Application to the Town of Blacksburg (Nov 4, 2005).

- Landscape Regulations; govern permitted species, sizes and locations of trees.
- Architectural Regulations; govern building styles, details and materials and the ways in which they can be incorporated into walls, windows, fences and roofs. These are considered the 'most objectionable' from a legal standpoint, as discussed later.

7.2 ISSUES IN THE FRAMEWORK OF A FORM BASED CODE

Even as it gains steadily in popularity and recognition, there are still detractors that argue against form based codes. These critics have arguments that fall into primarily three camps: lack of flexibility, an over-reliance on the charrette process, and how the produced code fits with the existing regulatory framework.

FLEXIBILITY

Unlike conventional zoning, form based zoning is prescriptive, and details only what can be built[7]. While this is an excellent visioning tool for communities to better understand where their code intends to guide them, this lack of flexibility is its weakness. After the code is put into place, the images on the page are the only ways the community can develop. And like we all know, life seldom turns out like the picture you envisioned. Form based codes are often so prescriptive that they rule out anything other than what regulators wish to see at that precise moment in time. "An appropriate balance between the degree of prescription required to create the desired physical result and the amount of discretion necessary to find solutions to unanticipated problems" are necessary in any regulatory framework[8].

7 Form Based Codes Handbook. op. cit. note 1

8 Robert Sitkowski and Brian Ohm, "Form-Based Land Development Regulations," The Urban Lawyer, Volume 28, No. 1, Winter 2006.

Another problem under the heading of flexibility are issues with the New Urbanist transect. Like many utopian city planners before them, they adhere to the 'a place for everything and everything in its place' mantra. The transect divides land use by type and density and arranges it in a way that fades linearly from urban, to semi-urban, to rural[9]. This idea, which works well as a diagram but not as a coding technique does not promote intra-block mixing of densities in a way that is amenable to urban growth and change.

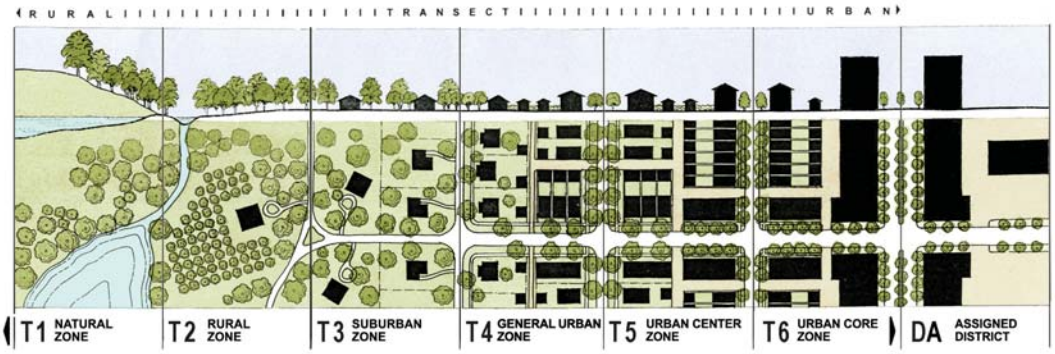

Figure 7-1. New Urbanism transect diagram

NEIGHBORHOOD VISIONING PROCESSES

Form based codes offer more flexibility than traditional zoning and thus may offer some respite from ills such as social and racial divisions created by exclusionary zoning and from the relative inutility of single use districts[10]. However, these benefits are eclipsed by some of the problems inherent to their visioning stage. Because of the potential curtailment of rights that these codes mean for property owners, a crucial aspect of the adoption of a form based code is community involvement. While meaning well, this actually has the potential to

9 Parolek, Daniel; Parolek, Karen; and Crawford, Paul. Form Based Codes: A Guide for Planners, Urban designers, Municipalities and Developers. Wiley. 2008.

10 Innis, Lolita Buckner. Back to the Future: Is Form Based Code an Efficacious Tool for Shaping Modern Civic Life? Cleveland-Marshall College of Law. February 2007.

further isolate those who are already at a disadvantage[11].

As often occurs in these small, community based charrettes, a particularly vocal group of interests may serve as proxies for the community as a whole. Depending on who has been informed of and has the time and understanding of the effects of participating in public charettes, some groups end up with more sway than others. Or even actively exclude some elements of the community[12]. Such groups may wield power in ways that corrupt or deform processes of group decision making. And because of form based codes localized focus, they potentially empower these elites not only to retain control of the planning process but to custom tailor their own neighborhoods without concern for the needs of the broader municipality[13].

Jane Jacobs expressed skepticism about the notion held by planners that there was a sufficient commonality between people living in the same geographical area so as to assume them to be allies for the purposes of creating and maintaining successful cities. She suggested that several thousand residents of a particular section of a large cit have no "innate degree of natural cross connection" hence, planning frameworks that seeks to unite neighbors in planning a common vision for their future can only have limited success[14].

It is a very significant concern to wonder whether form based codes are up to the task of taking into account concerns of an entire municipality, including regional issues such as environmental impact and infrastructural needs because of the community visions process' track record with social equality and differential access to power. It is worrisome that form based codes may actually enable those without elected official's accountability to control their own small

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11 Ibid.

12 Community Practice: Theories and Skills for Social Workers. David A Hardcastle, Patrice R. Powers and Stanley Wencour 112 (1997).

13 Innis, Lolita Buckner. op. cit. note 11.

14 Jacobs, Jane. Great American Cities, at 114-116.

fiefdom without effecting widespread changes to the benefit of all[15].

INTERGRATION WITH EXISTING REGULATORY FRAMEWORKS

A predominate challenge with form based codes come after they are developed, and that is fitting them in with the existing regulatory system. The translation of a small scale regulation system that might only deal with several square miles to one that deals with an entire metropolitan system is complicated.

"The integration of form based code standards into a more extensive conventional code requires careful attention to the relationships between the standards and procedures in each code in the event that conflicts between them are perceived."[16] These techniques are called 'splicing'. Applying form based codes to downtown, industrial, or other heavily built up or infrastructural areas will do more harm than good. Not every urban space needs to be regulated with that type of form based focus.

7.3 NOTABLE LEGAL STAUTES ON ZONING REGULATIONS

Like initial attempts at Euclidian zoning, California set an early precedent in form based zoning regulation. In 2004, Governor Schwarzenegger signed Assembly Bill No. 1268 which authorizes form based regulatory techniques.

> "This law authorizes the text and diagrams in a general plan's land use element that address the location and extent of land uses. These expressions may differentiate neighborhoods, districts, and corridors, provide for a mixture of land uses and housing types within each, and provide specific measure for regulating relationships between buildings and between buildings and outdoor public areas, including streets"[17].

However, states that have not enacted specific form based legislation still support this type of regulation through their initial 1926 Standard State Zoning

15 Innis, Lolita Buckner. op. cit. note 13.
16 Parolek, Daniel; Parolek, Karen; and Crawford, Paul. op. cit. note 9.
17 Cal. Gov't Code. §65302.4 (2005).

Enabling Act (SSZEA).The first three acts are very compatible with form-based zoning measures[18]. The "Grant Power" provisions of SSZEA include the following:

- Height, number of stories, and size;
- Lot coverage
- Yards, courts and other opens spaces;
- Density; and,
- Location and use of structures and land.

This second Districts section allows the division of the city into districts, but may pose implementation problems through its "Uniformity Clause" by which SSZEA requires that regulations be uniform by building type.

> "For any or all of said purposes the local legislative body may divide the municipality into districts of such number, shape, and area as may be deemed best suited to carry out the purposes of this act; and within such districts it may regulate and restrict the erection, construction, reconstruction, alteration, repair, or use of buildings, structures , or land. All such regulations shall be uniform for each class or kind of building throughout each district, but the regulations in one district may differ from those in other districts"[19].

The third Purposes in View section of the SSZEA grants the ability to regulate based on purposes such as:

- Lessening congestion in the streets;
- Securing safety from fire, panic, and other dangers;
- Promoting health and general welfare;
- Providing adequate light and air;
- Preventing overcrowding;
- Avoiding undue concentration of population.

It should be noted that these acts do not dictate a preference in zoning methodology, either by use or by form. In fact, a further paragraph lists 'character', a primary motivator for those interested in utilizing a type of

18 Robert Sitkowski and Brian Ohm op. cit. note 8.
19 Cal. Gov't Code. §65302.4 (2005).

form based code or Euclidian hybrids, as a factor that deserves "reasonable consideration"[20]:

> "Such regulations shall be made with reasonable consideration, among other things to the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the municipality"[21].

All land-use regulations must also satisfy the requirements of substantive due process. Since they are exercises of the police power, land development regulations must advance legitimate governmental interests that serve the public health, safety, morals and general welfare. However, a majority of jurisdictions in the United States now accept aesthetic considerations, as a legitimate goal in the exercise of the state's police power[22].

PROBLEMS WITH ARCHITECTURAL REGULATIONS

Highly detailed design standards were not much of an issue in early New Urbanist code because they were privately enforced. However, as these and other similar types of coding language move into the realm of publicly adopted regulation, they could be determined so detailed as to restrain expressive activity as regulated under the First Amendment to the US Constitution. A way to avoid this issue is to focus on using regulations to shape public space rather than mere built form. After all, SSZEA's Acts make a clear case for governmental duty to promote and maintain a healthy and safe public realm.[23]

7.4 SUMMARY OF FORM BASED CODE ISSUES

1) Form based codes have their root in private-covenanted regimes. This

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20 Robert Sitkowski and Brian Ohm op. cit. note 18.
21 Cal. Gov't Code. §65302.4 (2005).
22 Robert Sitkowski and Brian Ohm op. cit. note 20.
23 Blaesser, supra note §12 8:50 (examines issues related in determining the areas to which the public realm might apply).

will create friction during the translation process to the public realm as a wider variety of interests and issues must be taken into consideration[24].

2) Form based codes were primarily developed for green field developments. The formal application of these types of policies to urban areas, with their mixes of density, pre existing uses, and staccato transitions will raises issues of nonconformities and vested rights[25].

3) Any advantages a form based code gains in communication intended development patterns are ruled out over the passage of time, as the community behind the instantaneous snapshot changes. Instead of aiming toward a fixed model, it helps to think to zoning as a process guided by principles[26].

24 Robert Sitkowski and Brian Ohm op cit. note 22.
25 Ibid.
26 Elliott, Donald. op. cit. note 5.

CHAPTER 8: 'EVOLUTIONARY ZONING' FRAMEWORK

Urbanization is caused, at least in part, by scarcity. Certain resources are limited, and thus more efficiently used in a communal setting. Through the process of city building, more people were able to utilize their time at ever increasing levels of efficiency to acquire the essential resources for living. Scarcity is an opportunity, and not a limit. The gradual densification of urban neighborhoods like Silver Lake and Boyle Heights assist in this process of conservation of resources by pooling housing opportunity, heterogeneous populations, and transportation. Infrastructure becomes cheaper and easier to utilize to distribute water and electricity through dense urban areas than rural places.

Resourceful urban designers recognize the constraints of scarcity as an opportunity for creativity. Essentially, everything is a trade off. Scarcity of resources helps in the formation of local identity, walkable neighborhood retail, and preservation of quality open spaces. Like in Figure 5-22, Study of Hyperion Block, higher densities net more services and potential amenities.

8.1 LESSONS

Through the study of the dense and more sustainable neighborhoods of Silver Lake and Boyle Heights, several lessons on history, time, scale, and use have been documented.

- First, **history** is key. It is necessary to recapture existing neighborhood spaces with regard to their scales, types, and functions so that they can be combined, not bulldozed, for new types of spaces. Think multi-use, not single, to get more community interaction and value for the dollar.

- Second is the importance of **time**. This seems to be the most important lesson garnered from the case studies. New building development needs to take place in an incremental and dispersed manner because it avoids a concentration of monotonous spaces and homogeneous functions which are likely to discourage the neighborhood's adaptability to changing conditions. In order to further facilitate the dispersal of development over time, structures over a certain size should be required to retain their initial subdivision, regardless of lot ownership. This gives each parcel the freedom to change if necessary.
- Third is a lesson in human **scale**. It is important to maintain fine-grained traditional spatial contexts with regard to the building sizes and spatial types. Small textured building spaces provide human scale environments where various pedestrian activities can take place and promote neighborhood livability.
- The fourth lesson to take away is the **mixing of uses**. The functional diversity needs to be maintained because it encourages a variety of interest groups to interact with the neighborhood spaces and promotes diverse urban activities of heterogeneous groups.

8.2 PRINCIPLES

As best put by Dana Cuff, "In Los Angeles in particular, the city appears as a stop action frame. Nothing happens for a while, then suddenly we arrive at built results, seemingly by fast forward, with no clear grasp of how we got there. Like a series of discontinuous jump cuts, the landscape transforms without clear progression." [1]

Planning theory ostensibly has a much harder time dealing with this fast action pace than does its associated fields of architecture or real estate development.

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1 Cuff, Dana and Sherman, Roger. Fast Forward Urbanism. Designing Metro-urban America. Book Proposal. October 2007.

This thesis seeks to bring the planning discipline up to speed through an evolutionary zoning framework. Evolutionary zoning would attempt to more seamlessly bridge the present built environment with its future through a strategic and opportunistic regulatory framework.

It would allow for continuous flux and shifting relationships between individual parcels and the urban realm. It would take advantage of temporary surges in economic situations with all the fervor and flexibility of capitalistic systems. And it would be focused on long term, strategic sustainability for our environments. As revealed by this study, four fundamental principles of a flexible, evolutionary zoning code are the density limiters, block definitions for calculations, predictable change scenarios and sustainable features.

1. **Subdivision as limiting factor of density in neighborhoods.**

A key tenet of this research focused on the intrinsic flexibility in a pre-1926 neighborhood, as described by the Silver Lake Morphology Study. This neighborhood developed without the need for zoning's artificial divisions or overlays as the market determined what went where. The community retained its desirability through its fine grained subdivision process that allowed for flexibility over time. This reproves the timeless point that the foundation of urbanism is an open ended subdivision, rather than predetermined fixed visions of a particular built outcome.

Other density limiters could include percentage of block open space in a continuous parcel, quantity and quality of nearby transit options, quantifiers on the jobs / housing balance, ratio of on-street parking spaces to dwelling units, width of street to building height or context sensitivity in terms of neighboring building heights. For increasing housing choice, it might be permissible to allow up to a certain percentage of each typology on a block. In the Golden Gate

scenario of Figure 5-6, it has 3 box style apartments out of a block of 32 lots, so approximately 10% are these larger style apartments.

2. **Negative externalities as a limiter of density for mixed-use or commercial functions.**

Negative externalities for denser strips along main streets might include relative intangibles such as traffic capacity, public parking usage or pollutant levels. Neighborhood commercial strips and areas of higher density development offer levels of peak population to support green infrastructure retro-fits. Storm water management regulations such as percentage of permeable surfaces, preservation of tree stands, and integration of bio-swales can be used as a more effective means of limiting measure on density than simplistic FAR calculations.

Still, these standards are only appropriate if there is a consensus among residents and city council as to the community member's preferred future.

3. **Density should be calculated on a larger scale than the lot.**

Through the morphological study, it was determined that some lots are much higher in calculated density than the neighborhood overall. This type of variation is not prescribed by conventional zoning codes, but in Silver Lake, it works. This research proposes that lot by lot density should matter less than overall block density does. The scale of a block is important because it allows higher density projects a chance to equalize through their lower density neighborhoods.

A 'block' could be defined as both sides of the length of a street to either nearest intersection, or in the case of larger blocks, a walking radius of a tenth of a mile. The important aspect is the relative scale of regulation should increase when it comes to density and open space measures. A likely unit of measurement might be "frontages per acre", which would reinforce the

construction of the public right of way.

4. **Form, function, or density changes on one lot will affect the zoning of the lots surrounding it; a system based urbanism.**

Economically healthy cities should expect their neighborhoods to change over time, leading to greater development density, intensity, height, and land use variety. Zoning standards should be designed to change automatically, in predictable ways, over set periods of time, as plans change and real estate markets evolve. The process should be thought of as a periodic, "if . . . then . . ." type system. As one property is redeveloped, the possible viable uses of nearby properties can change, sometimes dramatically[2]. Having a set time-based system in place to capitalize on these market based changes would, at the very least, create a timely discussion between constituents, government, and the private sector on opportunities as they arise and their potential varying futures. This type of system could be pre-arranged through zoning by identifying areas that would be open to market based change and reinvestment and those that seek to remain the same[3].

8.3 EVOLUTIONARY ZONING FRAMEWORK

"The best list can not be more comprehensive than the quality of an intensive interaction between land, the built environment and the people who inhabit it."[4] And as with any new framework, it is important that the new code consider strengths of the current one and establish the hierarchy of interactions between the old and the new. A possibility would be that the new code only changes in key places – strip commercial, transit stops, key intersections, using these as density takers and community identity

2 Elliott, Donald. A Better Way to Zone: Ten Principles to Create More Livable Cities. Island Press, 2008.

3 Ibid.

4 Dobbins, Michael. Urban Design and People. Lecture. Georgia Institute of Technology. April 9, 2009.

builders.

Divided into hierarchical categories, the framework begins with a key finding of the research. After subdivision of land, the simple passage of time is the most important factor in developing character, integrating density, and supporting sustainable neighborhoods. After time, primary corridors, higher density corner parcel projects, and site layout in terms of vehicle access lend the next most to neighborhood character. Third is choice in housing, which includes diversity, density, and redevelopment opportunities. And the fourth factor to fall into place is open space and the urban realm. This is last not in importance but because everything else listed above contributes towards its quality.

1. Time / Incrementalism

Through the Silver Lake and Boyle Heights case studies, morphological studies helped to uncover that density, diversity and attainability developed throughout time. Density was added incrementally, allowing for the gradual increase of neighborhood amenities. Social demographics evolved, the economy fluctuated, and popular building types changed. Attainability is achieved both through the variety of building types on the street and the stagger in the years that they were built. For addressing these issues, a flexible framework focused on neighborhood evolution must take into consideration:

- Topographically based subdivision; allowing natural features and systems to dictate the built environment increases sustainability and natural awareness in communities.
- Development projects that span more than two parcels, by a single developer must retain their original subdivision. This is to give each parcel the freedom to change incrementally, if necessary, to market forces under the guide of the underlying subdivision hierarchy.
- Non-standard parcel configurations are an opportunity to fit a variety

of mixed usage types – live work, auto courts, shared driveways, and loop lanes, into traditional neighborhoods. (see page 100). Mixed uses are particularly successful in a neighborhood if parcel merging or original subdivision allows for back alley access.

2. Height

Another way to regulate allowable densities is by height. Unlike form based codes that create divisions through aesthetic measures, creating differentiation through height is statistically debatable. And by tying growth to heights, the street and the way building's front becomes easier to regulate. However, height as a limiter might be best placed out of the zoning code and into its own mapped entity, subdivision ordinance, or public works in order to emphasize its permanence and importance. As this paper noted, research has been viewed as a negotiable entity to developers over time.

3. Placement of Density

Corridors

In conventional zoning, density is handled with square footage minimums, FAR ratios, and maximum allowable building area. These general size calculations are not defined through an evolutionary zoning code, but are defined through the lot's immediate neighbors, and the context of the block.

- Through the Mar Vista and Panorama City case studies, additional density is shown as being tied to street typology, in particular, the boulevard type (see page 54). Within neighborhoods, density should be allowed to be added incrementally, starting with corner lots.
- These act as anchors for the street and provide larger spaces for various commercial, retail, or even light industrial uses over time (see page 90).

- It is also appropriate to place density across from institutional uses, given the wider population that they effect (see page 48).

However, with this influx of density come contextual requirements to create appropriate transitions and boundaries:

- Apartment building entries, porches, or door ways must be appropriately scaled with its single family neighbors and those across the street. (see page 91)

Access to lot

In architecture, it's often asked, "How does the building meet the ground?" In urban design, it should be asked, "How does the lot meet the street?" Access, both pedestrian and vehicular, is a primary determinant in the 'feel' of density on the sidewalk. It reinforces street hierarchy through the determination of service function locations.

- Uses with heavier traffic are better served with off-street access in form of a neighborhood alley. Page 83 shows an alley that provides as such for a neighborhood elementary school.
- Sometimes back alley access for single family homes can be beneficial to the public street realm as Page 90 also shows with back alley garage entrances allowing a more lush front yard landscaping.

4. Housing Diversity and Density

In Chapter 4, Soho Street through the Boyle Heights community was also used as case study for mixed density housing that creates more sustainable and livable neighborhoods by concentrating their development on through corridors. Maintaining affordability is important to many in town communities today as demand for urban core housing increases.

- A way to keep land affordable is to put more units on it to be able to divide the costs (see page 98).

- Ensure granny flats are no more than 600-700 sq ft for affordability reasons. The addition of these will reduce housing cost averages for the block. It's one of many choices for neighborhoods looking to increase density and affordability.

Redevelopment

Many mature areas are penalized for having been built up prior to the most current zoning regulations with restrictions intended to make non-conforming uses conform if they are to expand. A flexible zoning code should not disenfranchise "non-conforming" uses from the redevelopment process. Likely, they will exist for many years to come and therefore should have the same development rights as other lots and be able to undergo conversions as they see fit.

- Also, substantial reconstruction to retrofit a structure may drive up the cost of redevelopment past what the lot is worth. (see page 90)
- In mature areas, determine affordability not through percentage of new unit development, but through a variety of types and scales.

Parking

Sustainable communities should offer incentives towards a mass transit lifestyle. However, unlike conventional zoning, a evolution oriented zoning code will not detail the number of parking spaces per unit. This will be based on number of spaces per building square footage and will be limited upon how much on-street parking is available within a certain walkable radius, proximity to transit, availability of an edge lot or shared parking situations and the prevalence of bike lanes. A flexible zoning code should encourage shared parking to save space and increase functionality.

- Institutional and commercial parking zones can be shared with overnight guest parking, such as in page 90.
- A way to give consumers more choice is to unbundled parking from

housing costs by creating community parking pools.

- When parking is required on-site, ratio requirements should be based off of a buildings overall square footage, rather than its number of units. This will level the financial impacts of parking requirements, regardless of unit type, freeing developers to offer more choice.
- And page 61 shows on-site parking, but with a 'green screen'; a trellis with vines that separates the car parking from the sidewalk.

5. Open Space / Urban Realm

In the course of this research, almost every apartment case study noted the importance of quality outdoor space when dealing with increasing neighborhood densities. However, it will not treat like conventional zoning:

- Lot size, because in a mature city, these are assumed to be pre-existing. It will replace this by amount of open space within the block, as a limiting factor in development.
- General location, with the creation of a build-to line of which a percentage of the building must front, the rest of the structure's location will be left up to the developer.
- Minimum required open space per lot. This will be determined on a block by block basis. Blocks with large, quality nearby open spaces will be allowed to have less open space required on a lot basis.
- Back yards, as these do not affect the public street space.
- Setbacks, as it will use build to lines instead for a more coherent street space. The strength of this approach is to control the essential relationship between the building and the street.

In creating higher density lot arrangements, it is crucial to consider common space vs. private open space per unit.

- Social interaction interior to a lot is a great benefit, even if accessible by only those residents. (see page 87)

- Greenfield subdivision should leave room for open space and neighborhood retail – functions that often 'fill out' after initial population patterns.
- The current cadastral map of Westdale Village, page 55, shows how the ranch-style apartment replicates the relationship of indoor / outdoor of a single family home to its yard.
- The aerial view + subdivision grid of Andalusia, page 61, showcases that apartment's a transition of open spaces, like a Hispanic house.
- The aerial view + subdivision grid of the Manola, see page 60, apartments shows how each unit has an outdoor entrance. Also, this site design takes topography into consideration, with pedestrian walkway and outdoor community
- Development projects that span more than two parcels, by a single developer must include a significant amount of open space in their site planning (see page 95).
- Alleys on primarily single family streets can be heavily landscaped to use as green space (see page 102).

Public Realm

The streetscape takes into consideration the entire right of way plus 'semi-public' front yards. It comes last on the list not because of its insignificance, but rather because the placement of density, lot access, housing diversity, mature area redevelopment and open space all contribute to it's character. This section should contain micro elements such as sidewalk, street, parking lane, and travel lane widths.

- In the front yards, a minimal required landscape is dictated and may likely be used as a public / private divider (see page 96 or see page 96).
- Also important are public realm 'icons'. In Silver Lake these were the publicly maintained, hidden staircases transpiring between lots, between streets on the tops and bottoms of the low lying hills. The study of

Micheltorena block (see page 100) calls out this neighborhood identifier and mediator between public space, private dwellings and their inhabitants.

As outlined in the previous chapters, zoning codes should be flexible in their implementation over time as communities grow and values change. Especially as cities in the United States continue to mature, zoning will be less about green field development and more about managing existing development with infill, reinvestment, and renewal. This proposed evolutionary zoning framework is time based and attempts to allow future developments to evolve within the context with their block, rather than a pre-meditated, simplistic set of calculations.

An evolutionary zoning code is a method of focusing growth for quality urban neighborhood space, as a part of a block by block framework. Its emphasis on a thickened public sphere as the rhythmic baseline of a city hopes to counteract the discontinuity of growth spurts and un-coordinated development patterns. Overall, the unique character of most communities is not primarily established by architectural style, but rather by urban and community patterns.

CHAPTER 9: CONCLUSION

The future of our cities increasingly rests on the negotiation between four primary interests. It is the interdependence of these entities that drives our development and our urban forms.

- The neighborhood organization, as representating various constituencies.
- Public infrastructure; including high speed rail expansion, transit corridor development, renewable energy placement, food growth areas and wireless networks.
- The city as a governing municipality, determined to expand its tax base by increasing density.
- Private sector, as the instigator of the majority of developments.

The role of a systems based, flexible zoning code that reflects a neighborhood's inherent variability is to expand the conversation between constituents, gain a global view, and engage a broader public in fostering more well rounded neighborhood identities. An evolutionary zoning system would elevate land use regulation from mere compromise to true opportunities[1].

Those who use the code most frequently, developers, real estate agents, and consumers, are typically concerned with zoning for just the immediate future; typically less than five years. Those that are tasked with composing the code should be concerned with potential urban systems for the next hundred years.

The idea is not to construct a discernable 'vision' for the placation of immediate community wants, but to establish a framework within which principles evolve over time to swathe their eventual needs.

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1 Thurlow Small Architecture, Muchi East: Plan-less-ness: The Bay City Project. Praxis. Issue 10. October 2008.

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